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OIL SHALE

TRACT C-b

(C-203410)

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Revised Development and Manpower Schedule

Decision Document

July 25, 1978

Documenting The Revised Schedule Review

Completed by

Area Oil Shale Office  
U.S. Geological Survey  
Conservation Division

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DECISION DOCUMENTAOSO Independent Analysis  
of  
Revised Development and Manpower ScheduleIntroduction

This document is the result of a thorough review by the Area Oil Shale Office (AOSO) of the revised Development and Manpower schedule for the approved Detailed Development Plan (DDP) submitted by the lessees of Federal Oil Shale Tract C-b (C-b Shale Oil Venture). The revision contains a revised Commercial Development Schedule which replaces similarly designated Figure 1-B in the "Drawings" section of the DDP dated February 1977. Also included is an enclosure that provides a brief explanation of each of the numbered activities. The new development schedule is based on more precise estimates now that actual engineering design work has commenced and contracts have been awarded. Comparison of the original and revised development schedules indicate that an additional 51 months will be required to bring Tract C-b to commercial operation. However, as much as twelve months could be eliminated from this schedule revision if the contingency for unforeseen construction and ground control problems does not have to be exercised.

Review of the new development schedule indicates that the lessees will honor the due diligent development requirement specified in Lease Section 10. Other documentation provided by the lessees and actual observation by inspection personnel from this office indicate that shaft sinking, concreting, and hoist tower construction are preceeding at three shifts per day, seven days per week.

The revised Project Manpower Estimate replaces similarly designated Figure 1-C in the "Drawings" section of the February 1977 DDP. The manpower schedule coincides with the revised Development schedule. This revised Manpower schedule indicates a gradual build-up in the construction workforce with peak employment of 2,200 personnel and a permanent workforce of 1,600 employees.

Procedures

Over 170 copies of the revised Development and Manpower schedule were sent to the public and agencies of local, state and Federal governments. The transmittal letter contained much of the information presented

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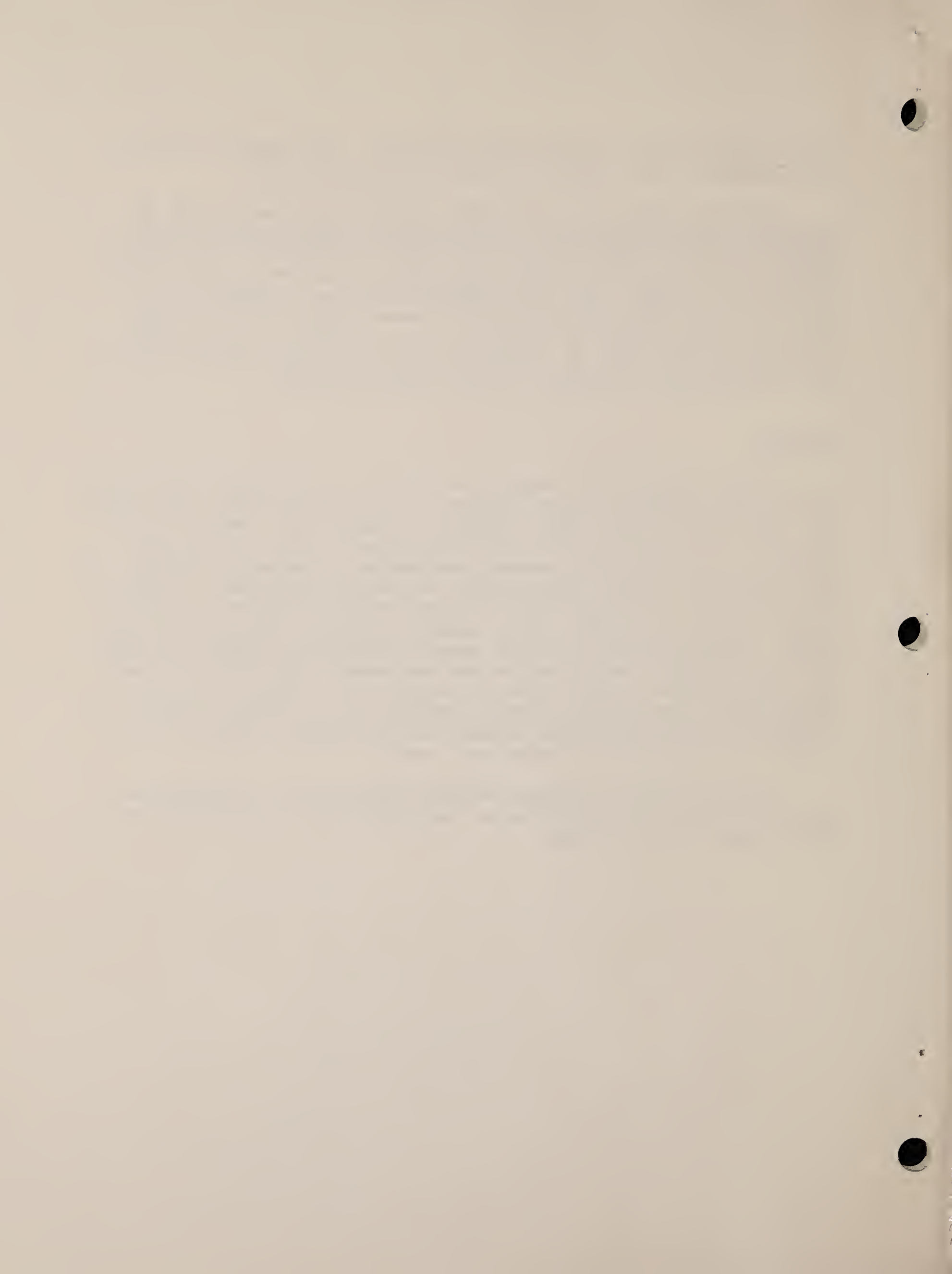
in the introduction of this Decision Document. The comments received were evaluated and considered in the review and analysis.

Review was made of all available reports and documents such as Technical and Economic Study of the Modified In Situ Process for Oil Shale by Fenix and Scisson, Inc. Nov. 1976, C-b Shale Oil Venture's DDP, Federal Oil Shale Lease and both the Evaluation Document and Decision Document on the DDP. Also the revised schedule was discussed with Bureau of Mines (BOM) personnel at the Denver Mining Research Center. The review and analysis by the AOSO technical staff of all available sources mentioned above in conjunction with the revised schedule led to the recommendation contained in this Decision Document.

### Analysis

Figures 50 and 53 (attached) from volume 1 of Technical and Economic Study of the Modified In Situ Process for Oil Shale by Fenix and Scisson, Inc. November 1976 were again reviewed in light of the lessees revised schedule. This report prepared for the Bureau of Mines contains the results of a technical and economic evaluation of conceptual systems for the underground mining, rubblization, and in situ retorting of deep oil shale deposits. Conceptual systems were synthesized and then evaluated against these factors from both a technical and limited economic viewpoint. Figures 50 and 53 are the normal development schedules for both the room and pillar mining method and the tunnel boring mining methods. These two methods were discussed at length in the Fenix and Scisson Final Report. The revised schedule submitted by the lessee of Tract C-b compares to the critical path diagram and development schedule as discussed in the Fenix and Scisson Final Report.

In evaluating the proposed schedule revision, the following comparison was made in order to better understand which operation schedules were changed and by how much:



MONTHS FROM SEPTEMBER 1, 1977

OPERATION	<u>Months</u>		
	ORIGINAL	REVISED	ADDITION
Start from DDP approval	0	4 (delay)	4
Plant and Headframe	18	28	10
Sinking	11	17	6
Grouting	0	3	3
Equipping Shaft	6	12	6
Stations	0	9	9
Commercial Mining	25	28	3
Subtotal	60 (Sept. 1982)	101 (Feb. 1986)	41
Contingency 25%	0	10	10
Total	60	111	51

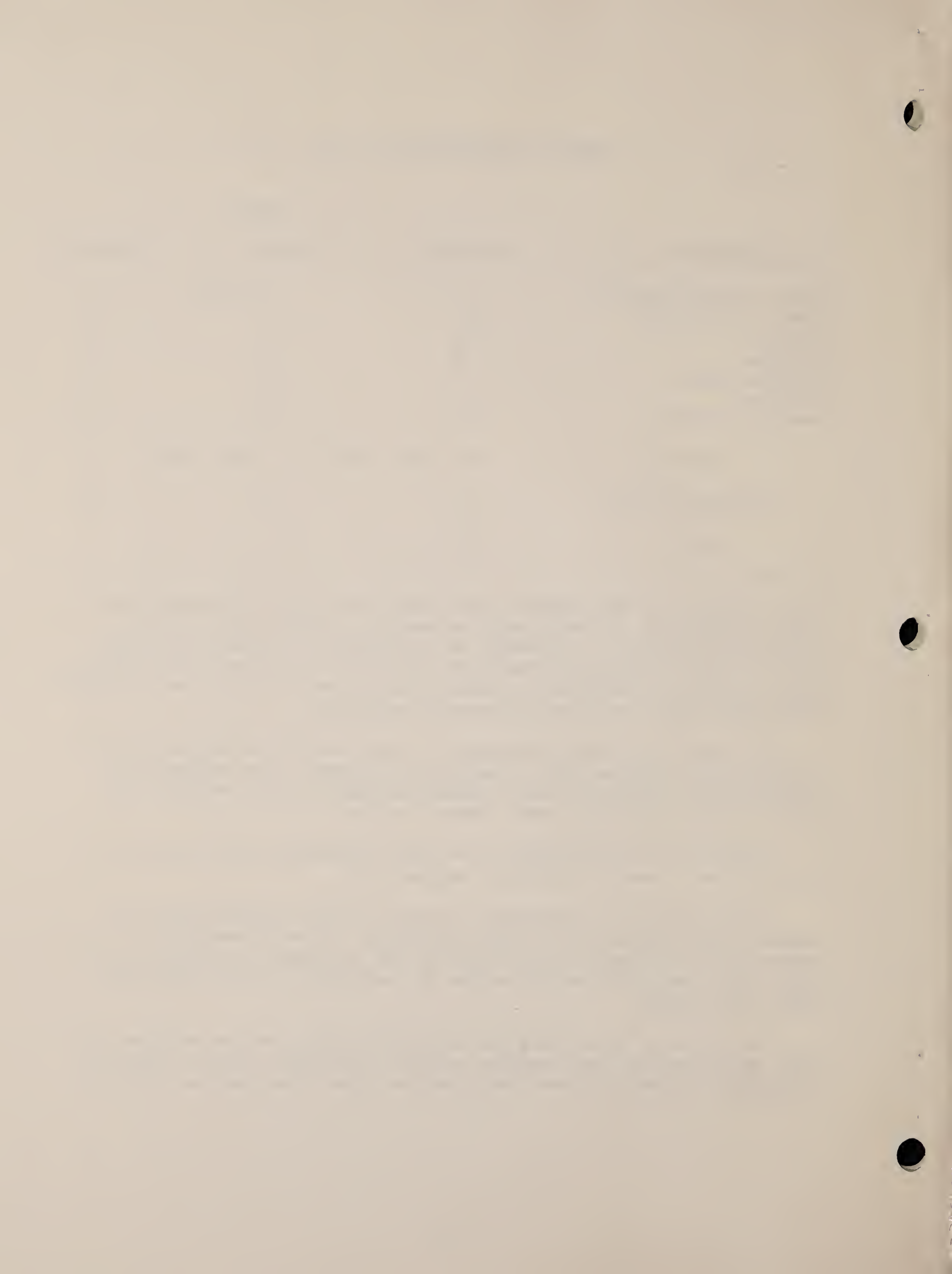
This comparison of the original and revised development schedules shows that an additional 51 months will be required to bring Tract C-b to commercial operation. The change in the schedule reflects additional time for shaft sinking and completion, additional mine level development and a 25 percent contingency. These revisions were based on more detailed engineering plans and actual contractor estimates.

The time for sinking, erecting the headframe and equipping the production shaft increased this schedule by 25 months. The expansion of station work, 500 feet of drift versus 100 feet of drift and the addition of three additional levels added 9 months.

Commercial mine development has been lengthened from 25 months to 28 months as a result of detailed engineering.

Shaft sinking was estimated, by the Fenix and Scisson report to require 19 1/2 months for a 1,230 foot shaft. With the addition of approximately 800 feet in depth and the 300 foot high slip-formed tower headframes, the additional 16 months is comparable to the estimate by Fenix and Scisson.

The contract for sinking the production shaft requires work on a 24 hour, seven day per week schedule and also contains a penalty clause of \$2,000/day for each day over the specified time. The contract calls for





91 days for the collar for the production shaft and 515 days for sinking the shaft. This does not include the headframe or the station work.

The three months scheduled for grouting off the water from the shaft is an estimate that is based on present hydrologic and lithologic data gathered from pump tests and core drilling. As no shafts have been sunk in this area by conventional methods the estimated time for grouting may not be accurate.

The 12 months scheduled to equip the shaft is six months more than the original estimate. The two friction hoists to be installed in the headframe, the rope guides for the skips, the loading pockets and skip loading and dumping facilities, with the auxiliary service lines which must be installed will be time consuming as installation of each must be done in sequence with little work done in parallel.

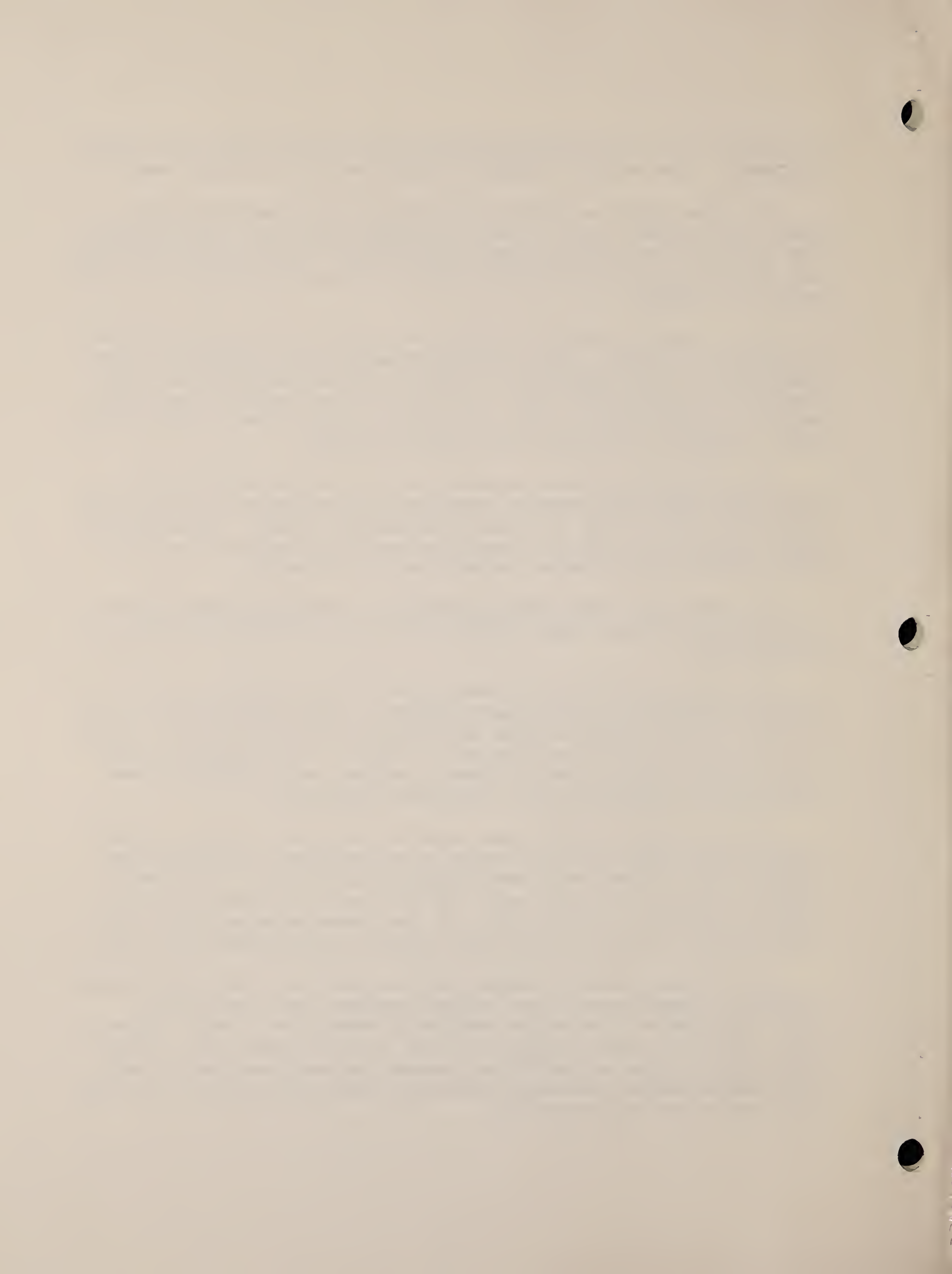
The additional stations necessary to develop the retorts by the horizontal rather than vertical method and the extension of the station drifts from 100' to 500' will add an estimated 9 months. Since this is more than twice the original excavation considered necessary under the first schedule the estimated revised time is reasonable.

The additional three months involved in commercial mining can be expected due to change from vertical to horizontal development and could be optimistic.

The lease requires the "Lessee to use all due diligence in the orderly development of the Leased Deposits". The revised schedule shows an effort by the lessee to bring the project into production at as early a time as the method of development will allow. The requirement that the contractors operate on a 24 hour, 7 day per week schedule assures the earliest completion of the development operations.

Section 7(e)(1) of the lease requires the lessee to pay a minimum royalty on 616,000 tons of oil shale on the sixth year, increasing by 616,000 tons each year up to and including the 15th year. The revised schedule shows first production in the 10th year and commercial production starting in the 12th year. If the lessee adheres to the schedule submitted for approval the "due diligence" requirement will be met.

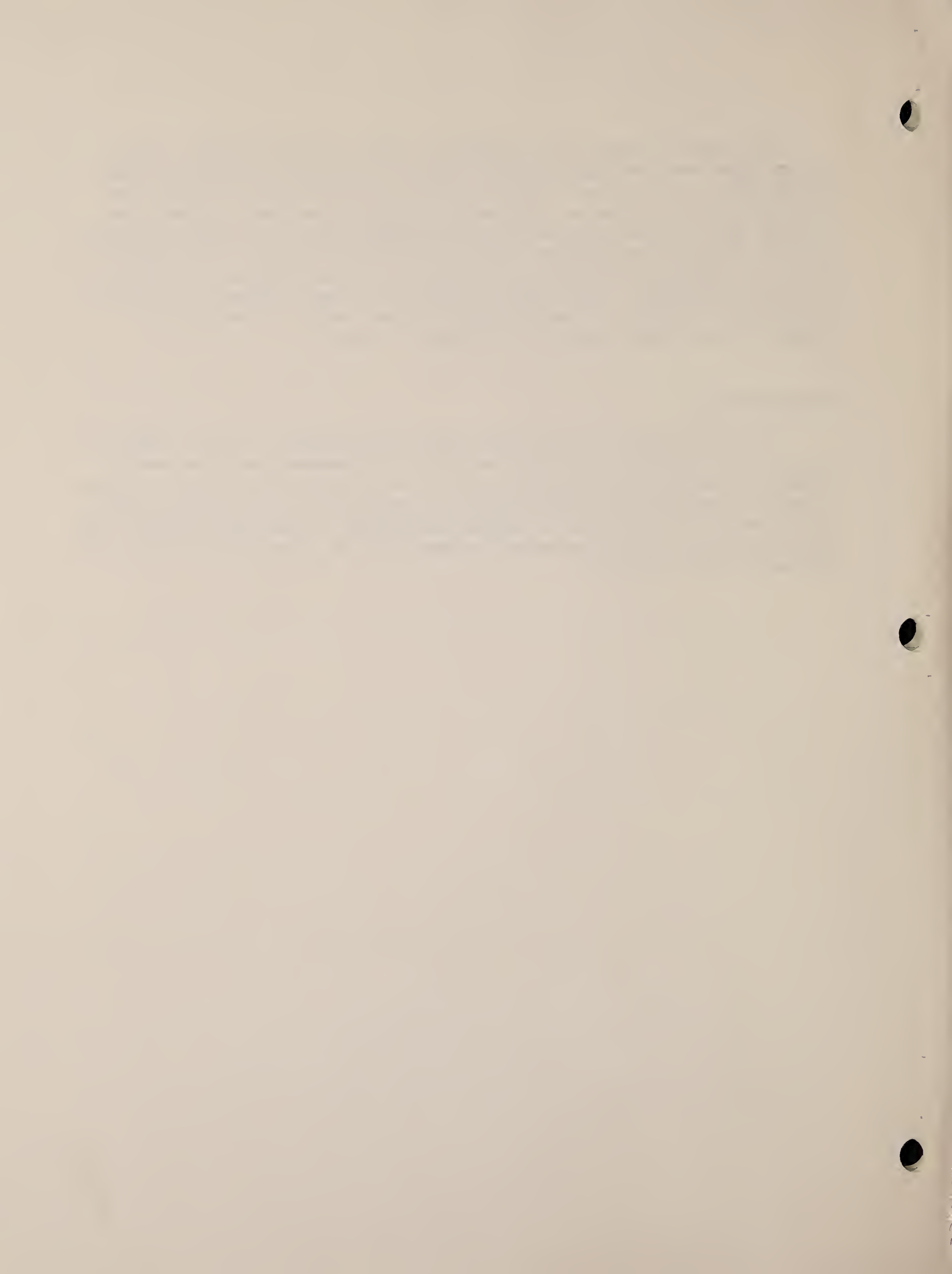
The manpower schedule change coincides with the revised development schedule. Comparison with the original manpower table indicates a slower build-up in construction workforce, peaking at a later date with fewer individuals over a longer and more constant growth rate. There will also be a less marked decline between the peak construction workforce and permanent operations employment easing the immediate and long-term impacts on area communities.



Six comment letters were received on the revised schedule. Four stated there were no significant problems or concerns with the revised Development and Manpower schedules. Two of the letters indicated some concern over the revision. One was directed at the short review time allotted and the other alerted the AOSS to make sure the lessees continue to meet diligent development requirements of the leases. The lessee will be reminded in the approval letter of the due diligent requirement of Lease Section 10. All comment letters and AOSO responses to the two letters are included in the Decision Document under the sections on comment letters and responses to comment letters.

### Recommendation

In consideration of the AOSO review and analysis, and the comments received during the review process; it is recommended that the revised Commercial Development Schedule and Manpower Schedule be approved. This approval should not be interpreted as a relaxation of the due diligence requirements in the lease or reflect any change in the lease terms. The approval also does not represent an extension or suspension of the lease agreement for tract C-b.



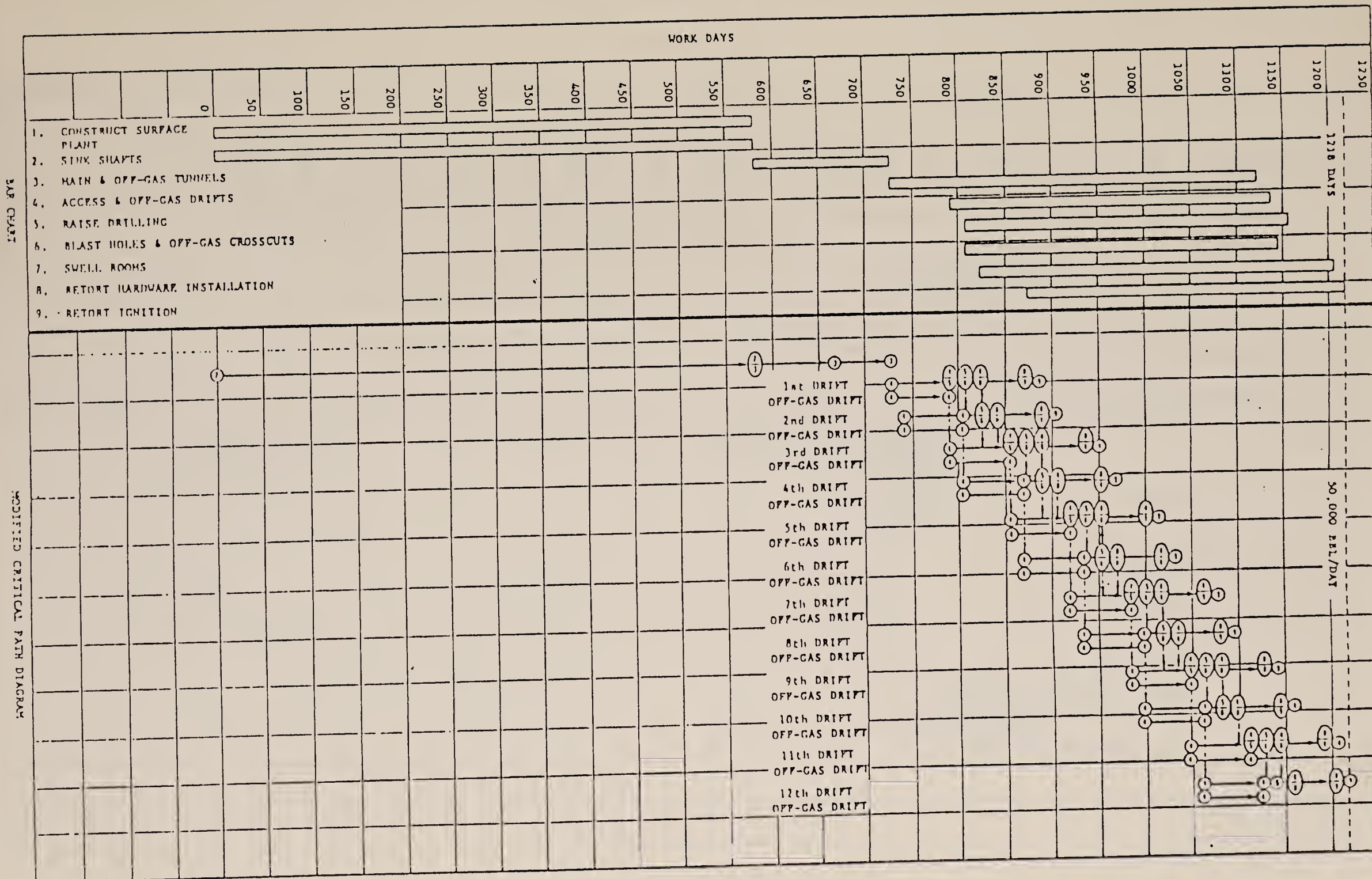


Figure 53. Normal Development Schedule For Tunnel Boring Mining Method - Base Case 40  
 Technical and Economic Study of the Modified In Situ Process for Oil Shale by  
 Fenix and Scisson, Inc. Vol. 1, November 1976.



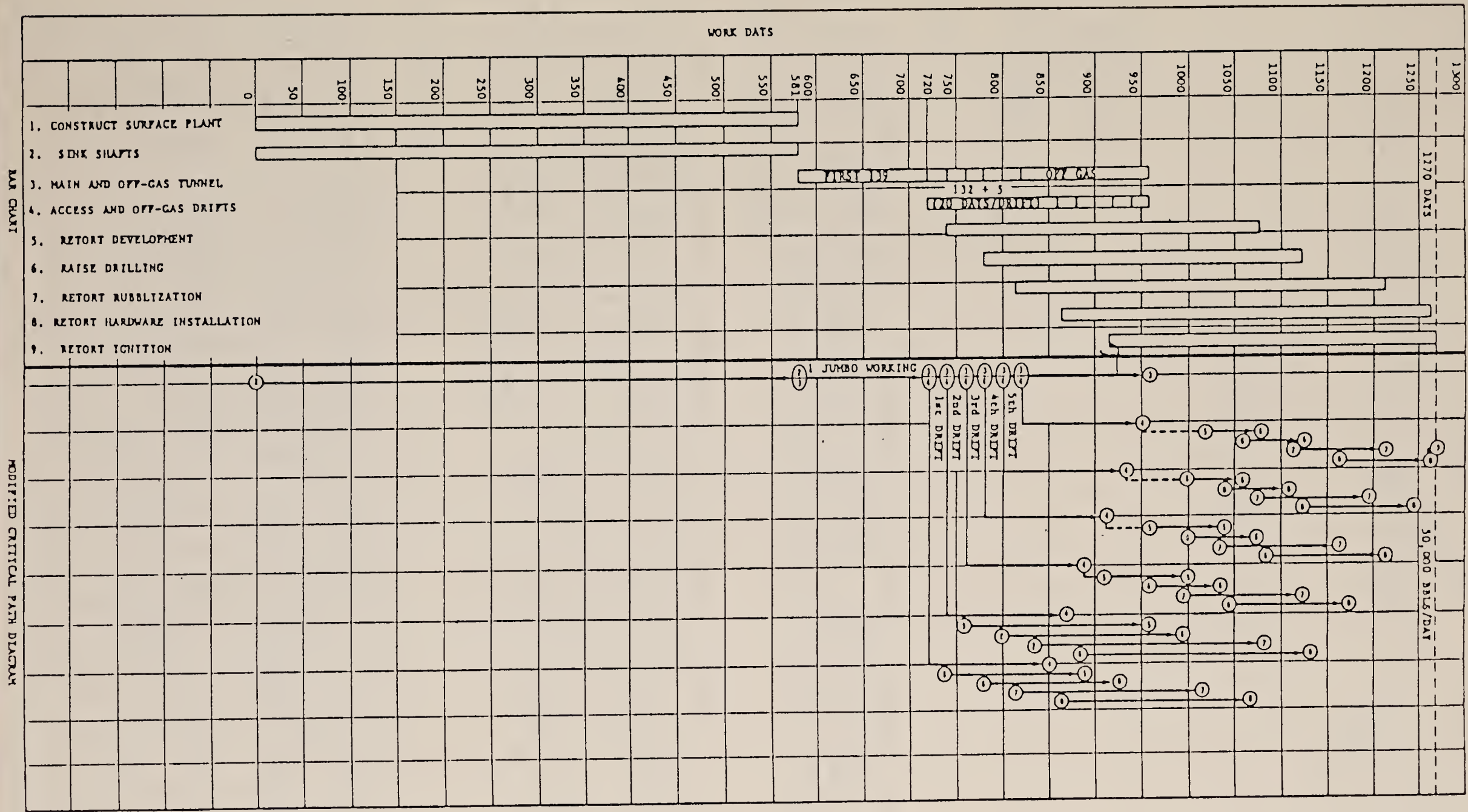
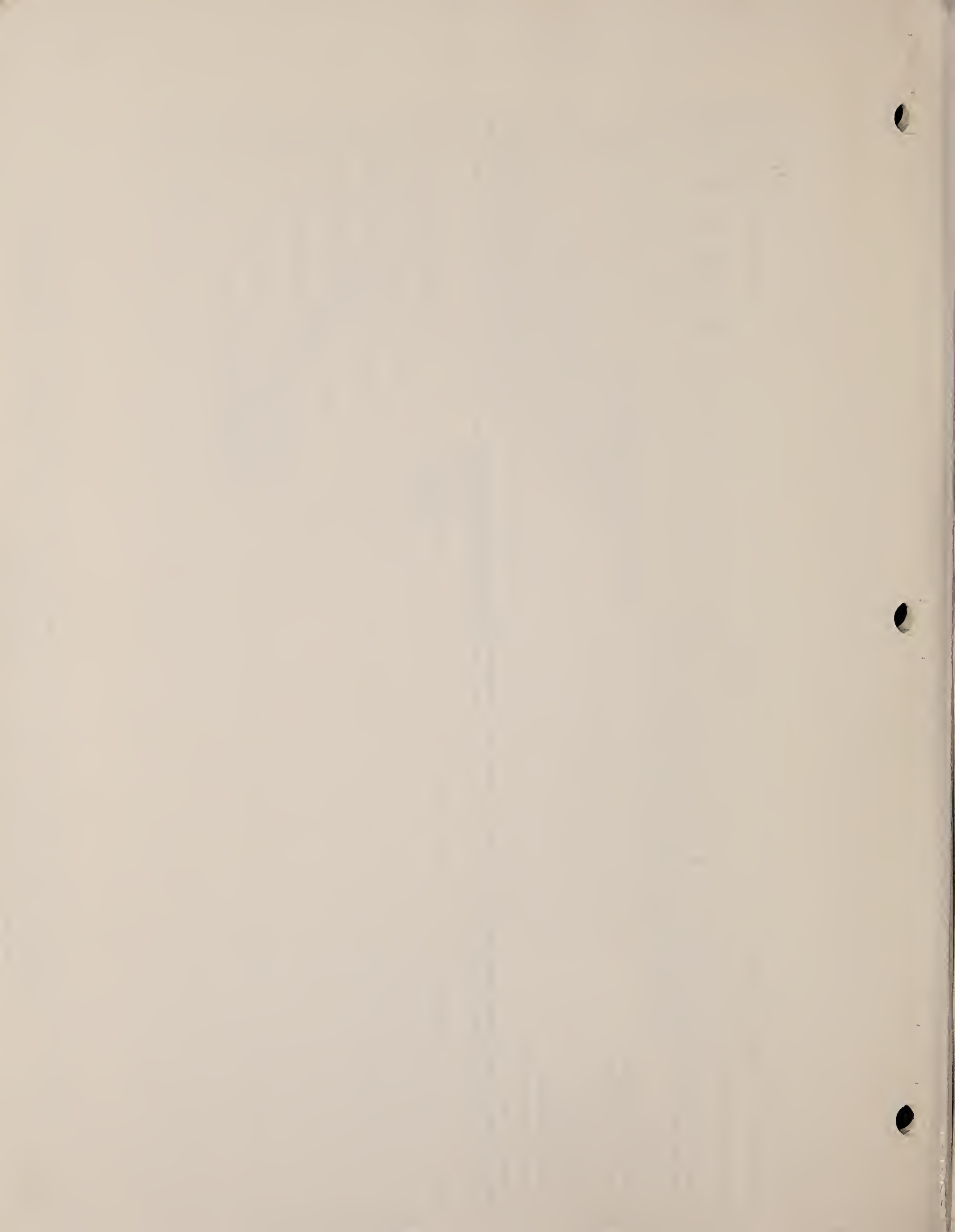


Figure 50. Normal Development Schedule For Room And Pillar Mining Method- Base Case 40  
 Technical and Economic Study of the Modified In Situ Process for Oil Shale by  
 ... and ... Inc. Vol. 1, November 1976





# C-b Shale Oil Venture

2372 G Road - P.O. Box 2687  
Grand Junction, Colorado 81501  
(303) 242-8463

Occidental Oil Shale, Inc.  
Operator  
Ashland Colorado Inc.



*Received*  
*4-14-78*  
*met*

March 29, 1978

Mr. Peter A. Rutledge  
Area Oil Shale Supervisor  
USDI - Geological Survey  
Conservation Division  
131 N. 6th Street, Suite 300  
Grand Junction, Colorado 81501

Dear Mr. Rutledge:

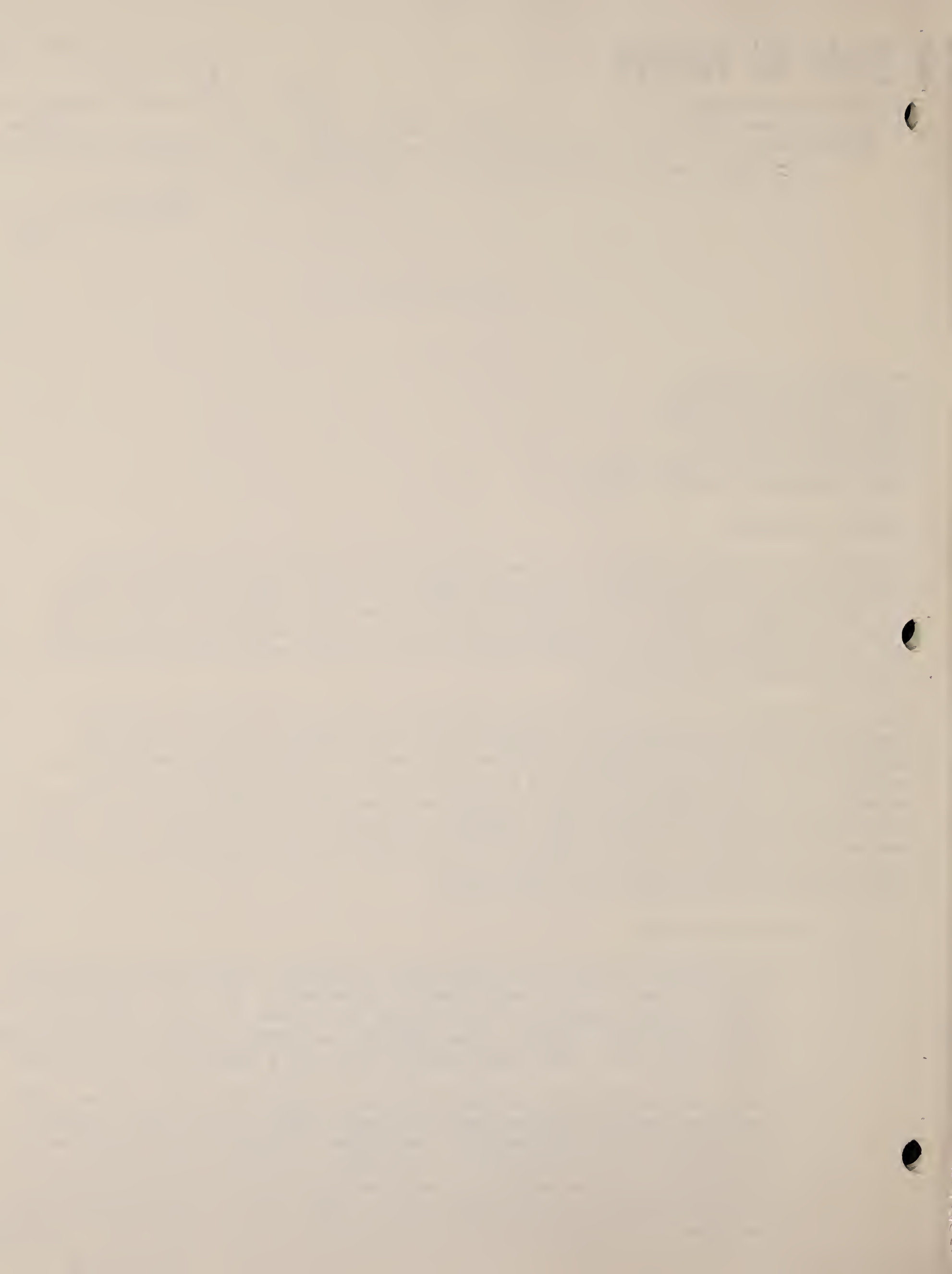
Attached is a revised schedule for the C-b Shale Oil Venture's planned development of Tract C-b under Federal Oil Shale Lease #C-20341. This revision, Figure I-B of the approved Detailed Development Plan, shows the commercial start-up date to be, December 1, 1986, or 51 months later than the date originally shown in the DDP. An attachment to the revised Figure I-B is provided which defines the specific items shown on the schedule.

When the Modification to the Detailed Development Plan was originally submitted, the mine design was conceptual. Estimates for the schedule were, by necessity, based upon preliminary information since there were no detailed engineering plans at that time. The major portion, 34 months, of the 51 month extension to the schedule is attributable to a longer requirement for shaft completion, even though the revised schedule reflects shaft sinking to proceed 3 shifts per day and 7 days per week to completion. Since the Production shaft is the only shaft on the critical path for the Project, similar schedule changes for the other shafts do not affect the commercial start-up date for the Project.

## A) Shaft Completion

1. The schedule (Figure I-B) contained in the DDP indicated that mobilization for shaft sinking would begin, September 1, 1977, following termination of the Suspension of Operations on, August 31, 1977. Although site grading did commence, the contract for shaft sinking was not signed until early 1978, with mobilization beginning 4 months behind schedule.
2. The original schedule contemplated that a temporary shaft sinking plant would be used to sink the shafts to total depth, to be later removed and replaced with the permanent headframe. Eighteen (18) months were allowed for these activities. The revised schedule is based upon construction of the permanent headframe to be used during shaft sinking, thus sinking can proceed once the seal floor of the headframe is in place. The installation of the permanent hoists, electrics, controls,

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etc., can then be completed during shaft sinking. These combined activities require 28 months, thus extending the original schedule by 10 months.

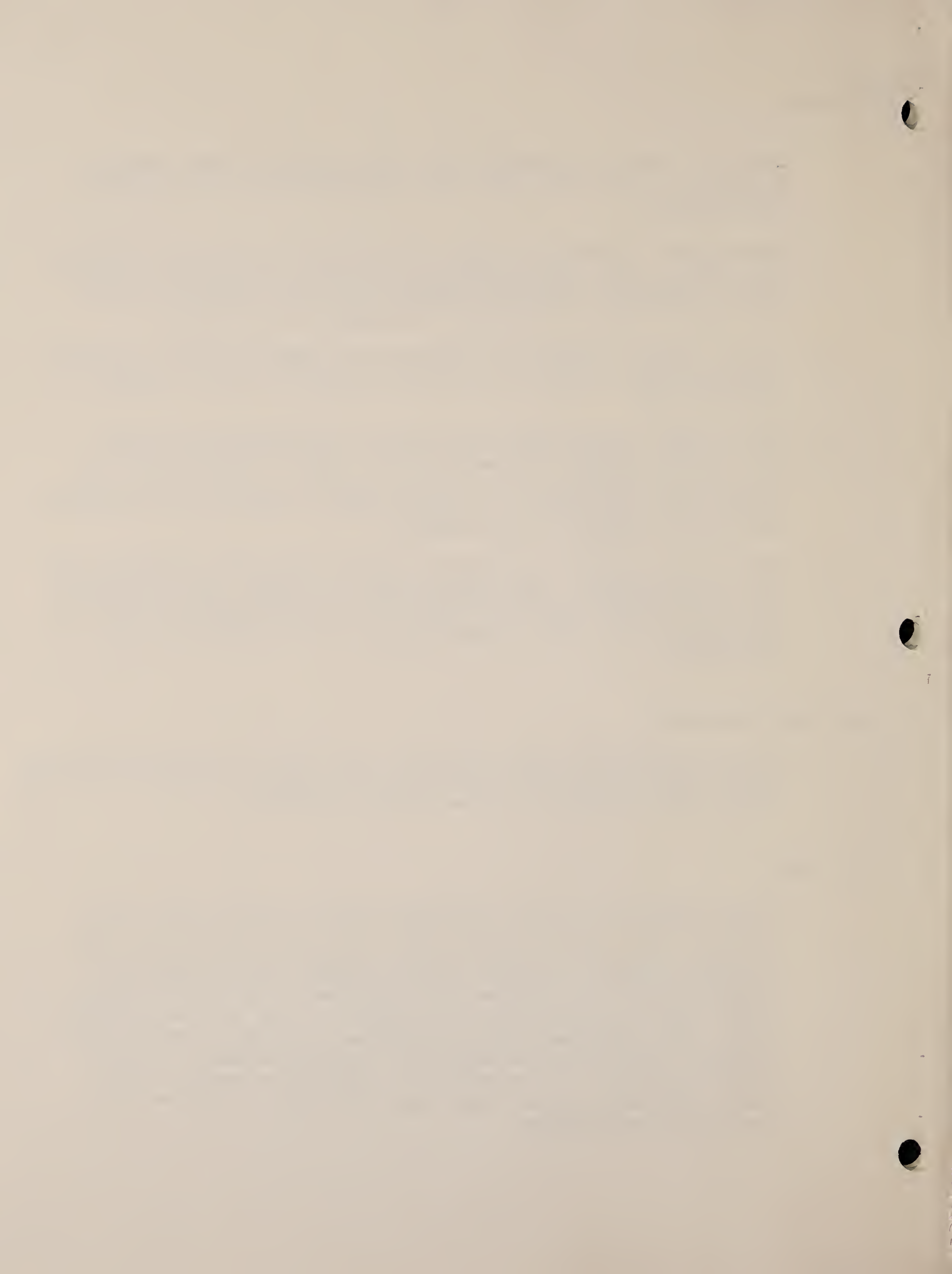
3. The original schedule was based upon eleven (11) months for sinking the shafts. The revised schedule, based upon the schedule estimated by the contractor selected to perform the work, reflects 17 months for this activity, an addition of 6 months to the schedule.
4. In the original schedule, no allowance was made for delays attributed to ground water control. The revised schedule contains 3 months for grouting time.
5. The original schedule provided 6 months for equipping the shaft, i.e., guides, ropes, conveyances, etc., and for construction of ore bins in the headframe. The revised schedule, as estimated by the shaft design subcontractor, indicates that 12 months will be required, thus adding 6 months to the schedule.
6. The original schedule provided for station development extending 100 ft. from the shaft. The revised schedule includes time for developing approximately 500 ft. of drifts at each shaft station, and three additional levels, thus adding 9 months for the additional level development.

B) Mine Development

1. Further refinement of the mining plan has led to a 28 month commercial mining effort prior to the start-up of the commercial retorts, 3 months longer than provided for in the original schedule.

C) Other

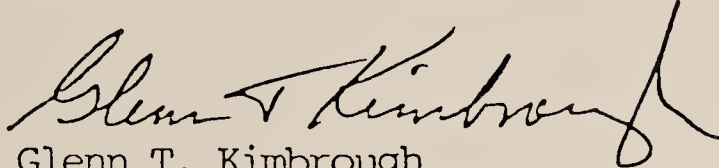
1. Since there has not been a shaft previously mined by conventional methods in the Piceance Creek Basin, there is no experience from which to accurately predict the problems which may be encountered. Concerns relative to ground control problems, water control and advance rates to be achieved are recognized as potential problems which could adversely affect the schedules. Due to these uncertainties, a 25% contingency has been applied to the shaft construction schedule, resulting in an additional 10 month extension. Should this contingency prove unnecessary, commercial operations would begin, February 1, 1986, rather than, December 1, 1986, as shown on the revised schedule.



I trust the above explanation adequately addresses the changes necessary in the Commercial Development Schedule for the C-b Shale Oil Project. Every effort will be made to shorten the schedule.

Sincerely,

C-b SHALE OIL VENTURE



Glenn T. Kimbrough  
Assistant to Project Manager

GTK/sd  
Attachment





# United States Department of the Interior

## GEOLOGICAL SURVEY

Conservation Division  
Area Oil Shale Supervisor's Office  
Mesa Federal Savings & Loan  
131 N. 6th, Suite 300  
Grand Junction, Colorado 81501

May 12, 1978

Dear

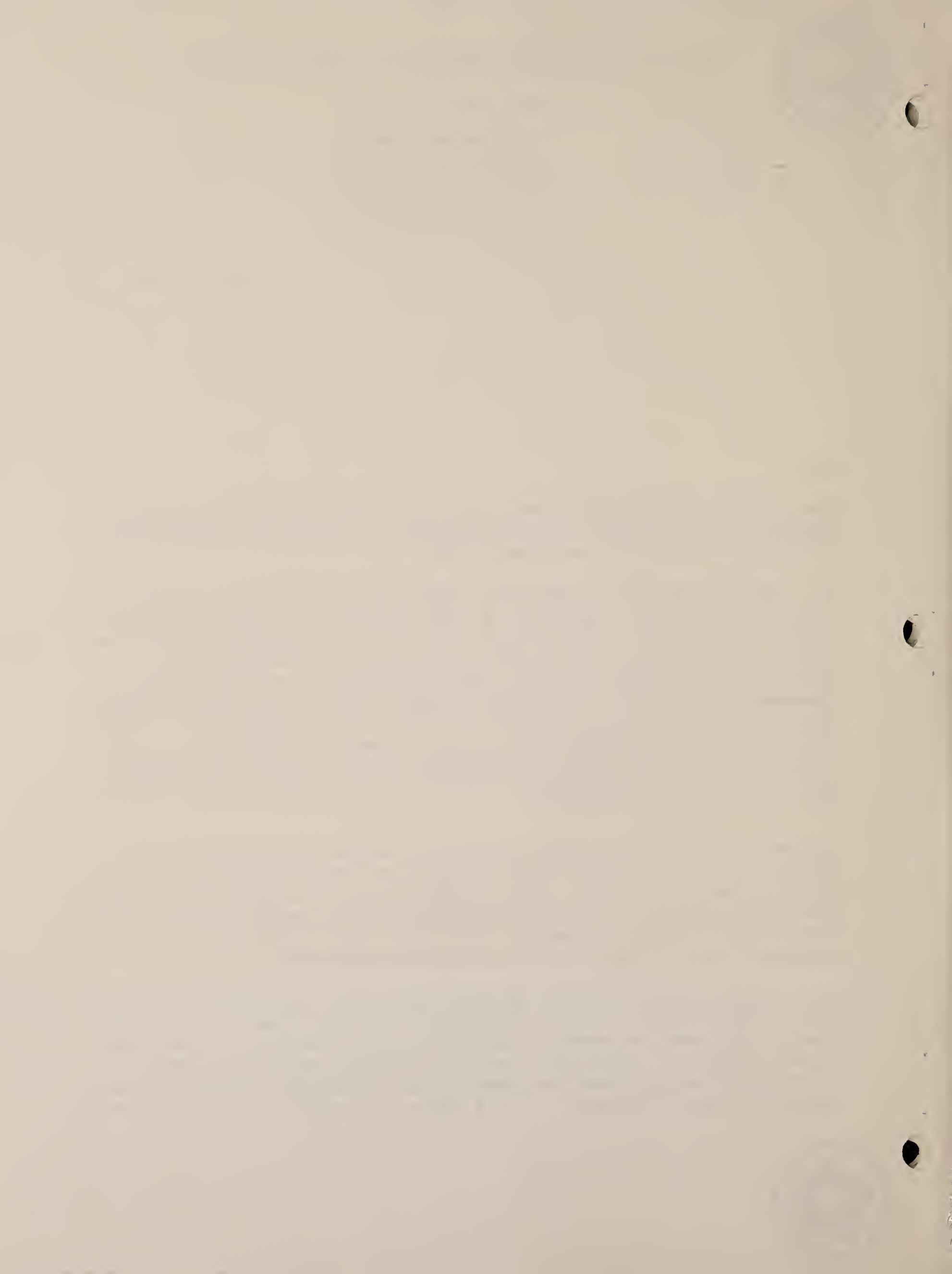
The lessees of Federal Oil Shale Tract C-b (C-b Shale Oil Venture) have submitted the enclosed revised Development and Manpower schedules for the approved Detailed Development Plan.

The revised Commercial Development Schedule (Enclosure A) replaces similarly designated Figure 1-B in the "Drawings" section of the plan dated February 1977. Enclosure B, provides a brief explanation of each of the numbered activities. The new development schedule is based on more precise estimates now that actual engineering design work has commenced and contracts have been awarded. Comparison of the original and revised development schedules indicate that an additional 51 months will be required to bring Tract C-b to commercial operation. However, as much as 12 months may be eliminated from this schedule revision if the contingency for unforeseen construction and ground control problems does not have to be exercised.

Review of the new development schedule in no way suggests that the lessees will not honor the due diligent development requirement specified in Lease Section 10. Other documentation provided by the lessees and actual observation by inspection personnel from this office indicate that shaft sinking, concreting, and hoist tower construction are proceeding at three shifts per day, seven days per week.

The revised Project Manpower Estimate (Enclosure C) replaces similarly designated Figure 1-C in the "Drawings" section of the February 1977 plan. This manpower schedule change coincides with the revised development schedule. Comparing it with the original manpower table indicates a slower build-up in construction workforce, peaking at a later date with fewer individuals over a longer and more constant growth rate.



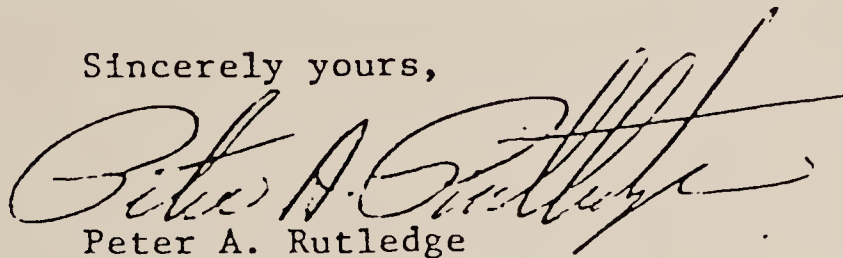




There will also be a less marked decline between the peak construction workforce and permanent operations employment easing the immediate and long-term impacts on area communities.

If you have any questions or comments regarding these schedule changes, please feel free to contact this office before May 30, 1978.

Sincerely yours,

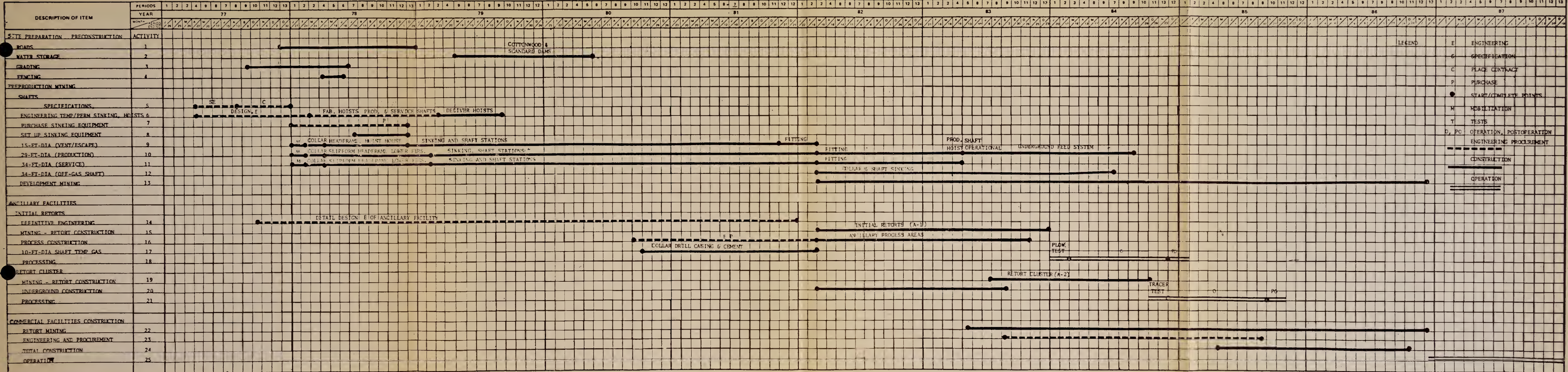
A handwritten signature in cursive script, appearing to read "Peter A. Rutledge". The signature is written in dark ink and is positioned above the typed name.

Peter A. Rutledge  
Area Oil Shale Supervisor

Enclosures (3)

Sent to DDP List for Tract C-b





- LEGEND
- E ENGINEERING
  - G SPECIFICATION
  - C PLACE CONTRACT
  - P PURCHASE
  - START/COMPLETE POINTS
  - M MOBILIZATION
  - T TESTS
  - D, PO OPERATION, POSTOPERATION
  - ENGINEERING PROCUREMENT
  - CONSTRUCTION
  - ==== OPERATION

Figure 1-B - C-b Oil Shale Project Commercial Development Schedule



ATTACHMENTTO FIGURE 1-B(OF 3-28-78)SITE PREPARATION - PREPRODUCTIONACTIVITY1. ROADS

This includes the procurement of materials, the preparation and execution of construction contracts and the construction of Tract access roads and Tract interconnecting roads.

2. WATER STORAGE

The purchase of materials, preparation and execution of construction contracts and the construction of major water storage facilities are included in this activity.

3. GRADING

This activity includes the purchase of equipment, preparation and execution of construction contract and the construction related to the general grading work. This work encompasses general excavation, fill, surface drainage, and seeding.

4. FENCING

This includes procurement, preparation and execution of construction contract and erection of both temporary and permanent fencing required for initial construction activities.

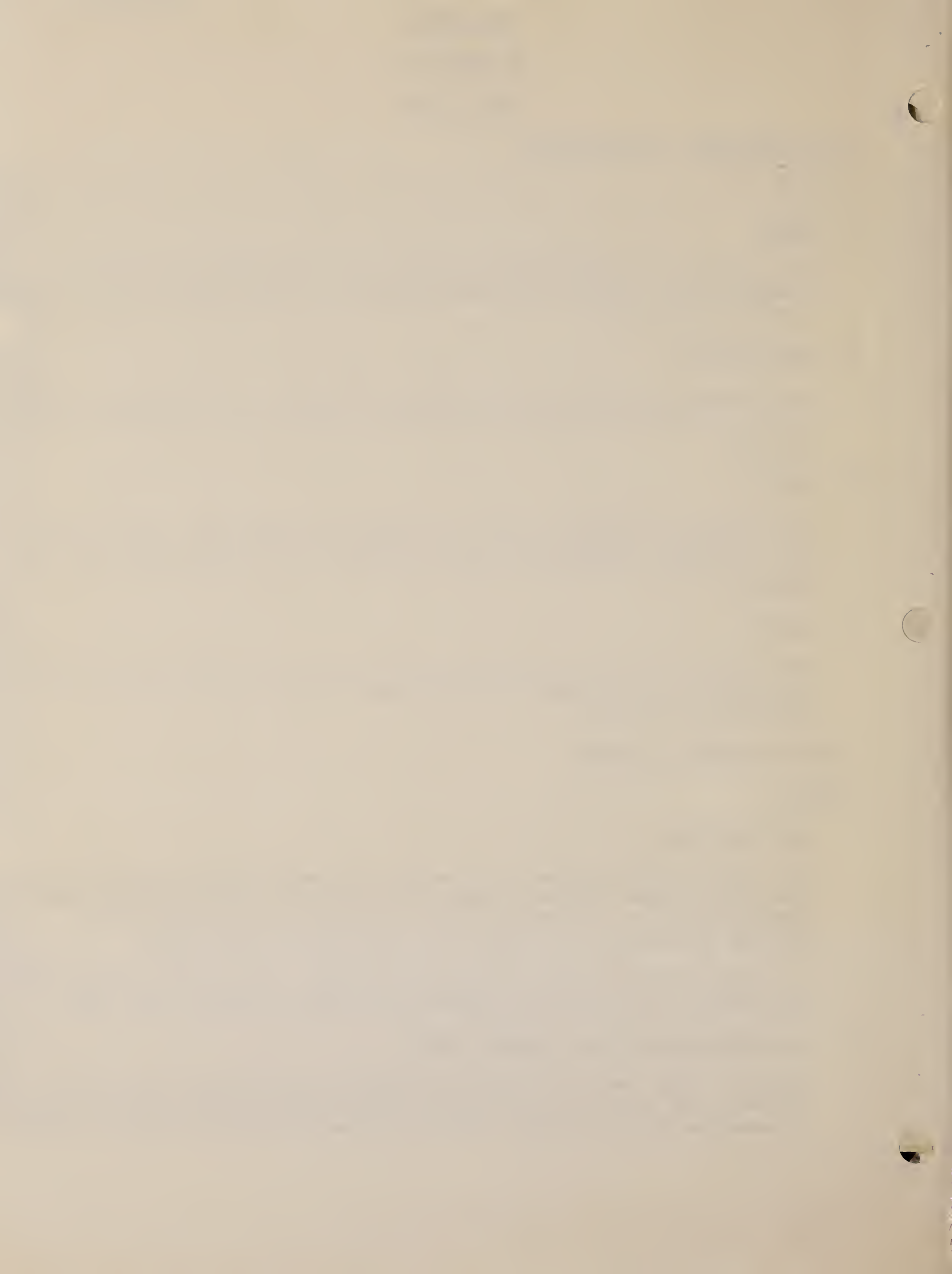
PRODUCTION MINING - SHAFTSACTIVITY5. SPECIFICATIONS

SE: This activity includes the generation of specifications and associated engineering design for the following areas related to the Production, Service, Ventilation/Escape, and Off-Gas Shafts; excavation, forming and pouring concrete foundations for collars, and slip forming of headframes.

C: This activity includes the obtaining of bids, the evaluation, preparation and execution of construction contracts for items included in "SE" above.

6. ENGINEERING TEMP./PERM. SINKING, HOISTS

Design E: This activity includes the design and engineering of the shaft equipment for the Production, Service and Ventilation/Escape Shafts. It also includes the design of hoists, hoist houses and headframes for these shafts,



and obtaining bids, the evaluation and placement of purchase orders for the Koepe friction and Orenstein & Koepe drum hoists and accessories for the Production and Service Shafts.

FAB HOISTS - PRODUCTION AND SERVICE SHAFTS: This activity includes fabrication of the tower mounted Koepe and Orenstein hoists for the Production and Service Shafts.

DELIVERY HOIST: This activity includes the period in which the various Production and Service Shaft hoists will be delivered to the Tract.

#### 7. PURCHASE SINKING EQUIPMENT

P: This activity includes the obtaining of bids, the evaluation, and the preparation and execution of an order for an existing ground mounted double drum hoist for the Ventilation/Escape Shaft. This activity also includes a series of modifications of the purchased hoist.

#### 8. SET UP SINKING EQUIPMENT

This activity includes installation of temporary sinking equipment for the Production and Service Shafts. It also includes the installation of the major portions of the permanent Ventilation/Escape Shaft hoists required for shaft sinking operations.

#### 9. 15 - FT - DIA (VENT/ESCAPE) SHAFT

M: This activity includes the mobilization by the Ventilation/Escape Shaft collar contractor.

COLLAR: This activity includes the excavation, the pouring of concrete and the back filling for the Ventilation/Escape Shaft collar.

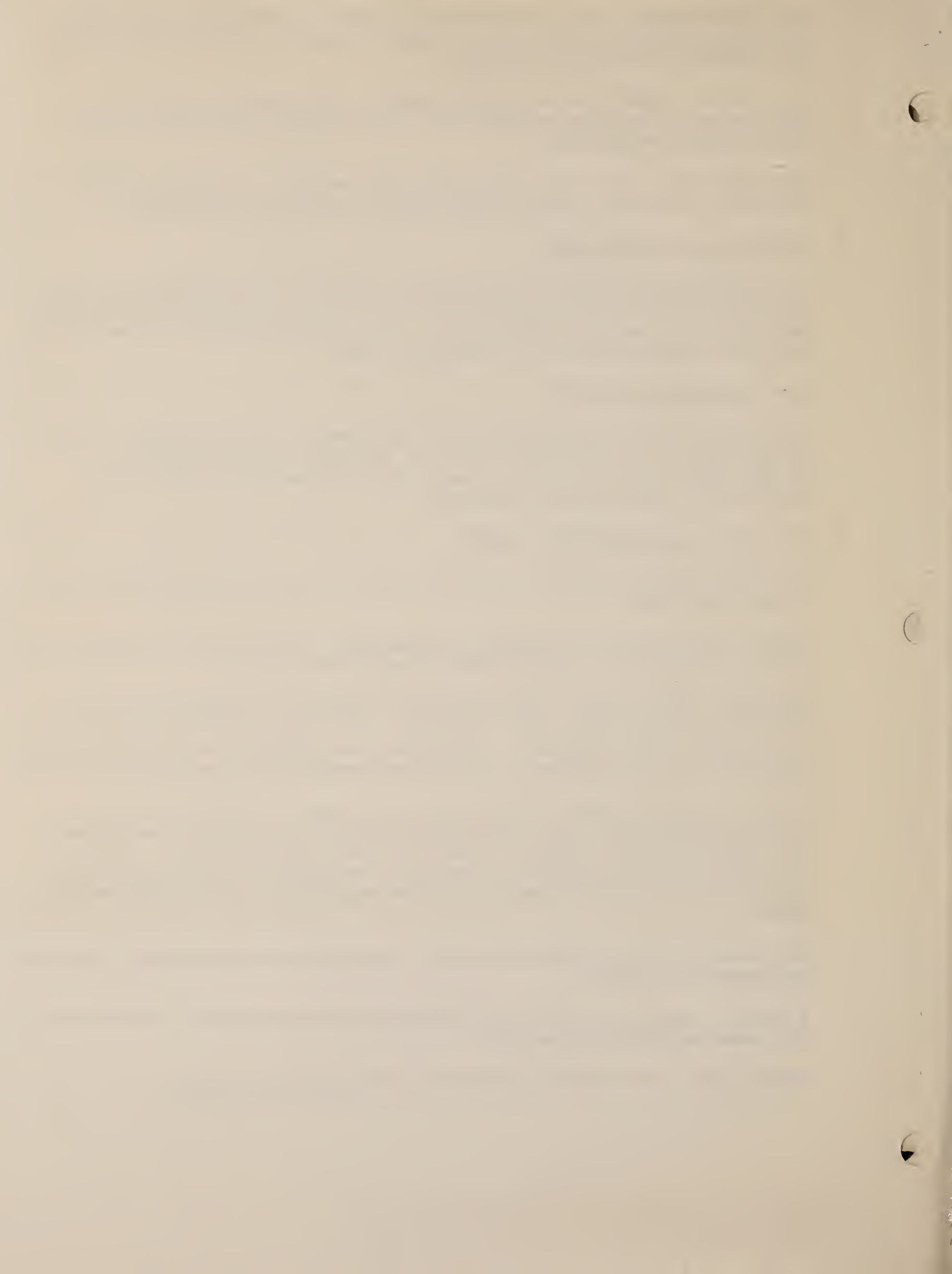
HEADFRAME, HOIST HOUSE: This activity includes the installation of the Ventilation/Escape Shaft steel headframe, its cladding and the installation of sheaves in the headframe. The activity also includes the pouring of the foundation and the erection of the ground mounted hoist house for this shaft.

SINKING, SHAFT STATIONS: This activity includes the sinking of the Ventilation/Escape Shaft using conventional drilling and blasting techniques. The sinking operation provides time for water control grouting. Time is provided for the excavation and concrete work associated with the required shaft stations and the underground interconnections with the Temporary Gas Shaft.

This activity also includes concurrent engineering and procurement for shaft operational facilities.

FITTING: Included in this is the equipping of the shaft and the erection of the associated surface ore bins.

NOTE: This entire activity includes a 25% contingency factor.





10. 29 - FT - DIA (PRODUCTION) SHAFT

M: This activity includes the mobilization by the Production Shaft collar contractor.

COLLAR: This activity includes the excavation, the pouring of concrete and the back filling for the Production Shaft collar.

SLIP FORMING, HEADFRAME, LOWER FLOORS: This activity includes the slip forming of the concrete headframe and the lower floors in the headframe to a sufficient extent to allow the installation of the temporary shaft sinking hoisting equipment.

SINKING, SHAFT STATIONS: This activity includes the sinking of the Production Shaft using conventional drilling and blasting techniques. The sinking operation provides time for water control grouting. Time is provided for the excavation and concrete work associated with the required shaft stations. During this period, the headframe is completed, and the underground passage between Production and Service Shafts is established.

This activity also includes concurrent engineering and procurement for shaft operational facilities.

FITTING: This involves the final equipping of the shaft, including hoist electrics, controls, etc., in its permanent internal configuration. Also included is the construction of an underground temporary ore feed system and the erection of the associated surface ore bins.

UNDERGROUND FEED SYSTEM: This activity includes the excavation, concreting, and equipment installation for the underground material storage, conveying, and loading facility required for full commercial production.

NOTE: This entire activity includes a 25% contingency factor.

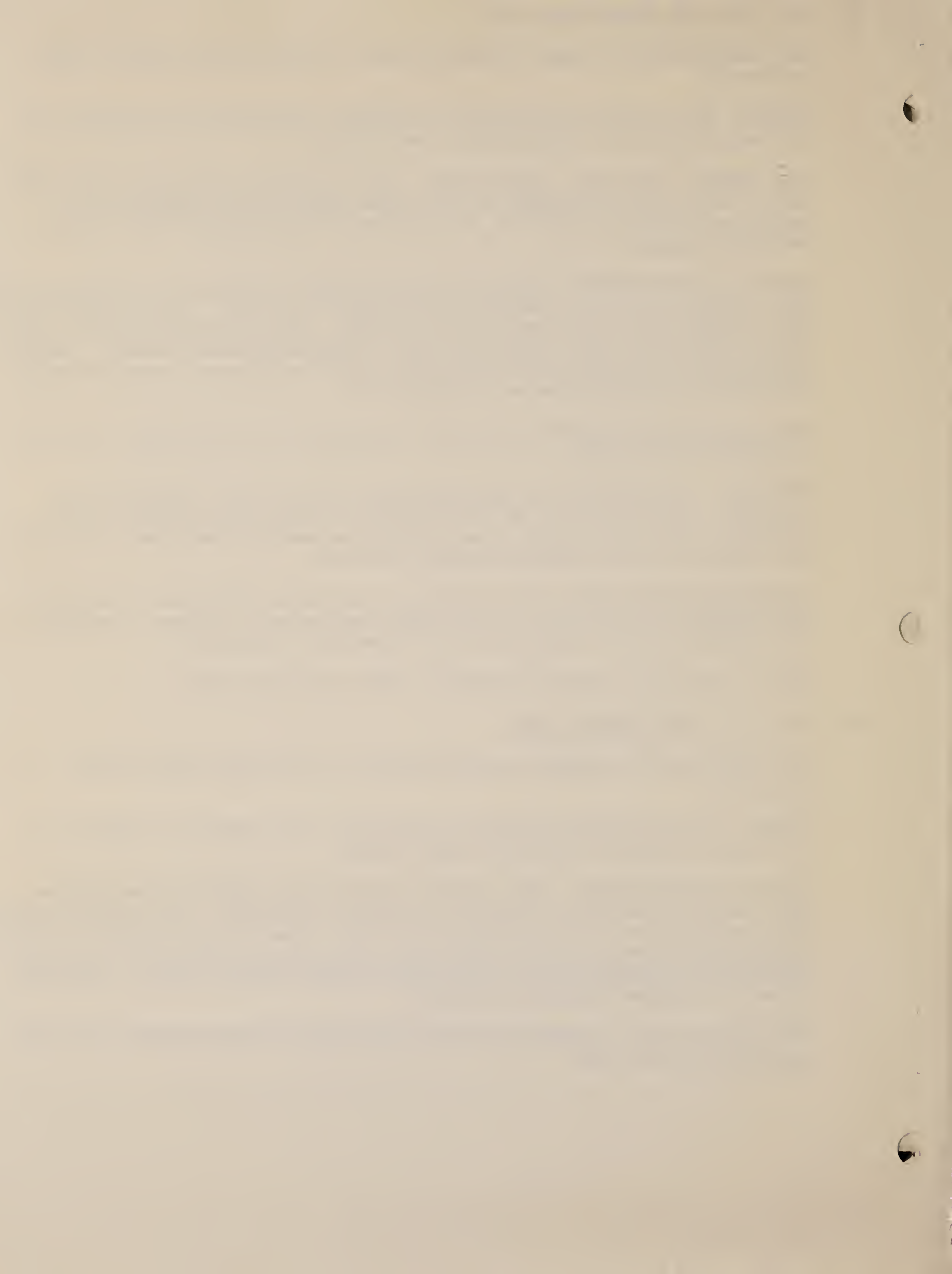
11. 34 - FT - DIA (SERVICE) SHAFT

M: This activity includes the mobilization by the Service Shaft collar contractor.

COLLAR: This activity includes the excavation, the pouring of concrete and the back filling for the Service Shaft collar.

SINKING, SHAFT STATION: This activity includes the sinking of the Service Shaft using conventional drilling and blasting techniques. The sinking operation provides time for water control grouting. Time is provided for the excavation and concrete work associated with the required shaft stations and the underground interconnection of the Production and Service Shafts. The headframe is completed during this period.

This activity also includes concurrent engineering and procurement for shaft operational facilities.



FITTING: This involves the final equipping of the shaft in its permanent internal configuration.

NOTE: This entire activity includes a 25% contingency factor.

12. 34 - FT - DIA (OFF-GAS) SHAFT

COLLAR AND SHAFT SINKING: This activity includes the excavation and pouring of concrete collar, and back filling prior to sinking. It also includes the shaft sinking of the Off-Gas Shaft using conventional drilling and blasting techniques. The sinking operation provides time for water control grouting. This activity also includes a 25% contingency factor.

13. DEVELOPMENT MINING

This preproduction activity includes the drifting (excavation) for all levels of the mine from the general shaft areas to the retorts. It also includes the mining of material from underground services area. Work for both the Ancillary and Commercial areas is involved.

ANCILLARY FACILITIES - INITIAL RETORTS

14. DEFINITIVE ENGINEERING

DETAIL DESIGN, E OF ANCILLARY FACILITIES: This activity involves the detailed design of the initial retorts and the concomitant retort cluster. Included are all of the underground process and service areas not previously designed, plus all of the Ancillary surface installations requiring early design to meet long lead delivery or other constraints. Also included is the design of any Commercial Facilities which are needed to support the Ancillary operations.

Procurement of some equipment and materials is part of this activity.

15. MINING - RETORT CONSTRUCTION

INITIAL RETORTS (A-1): This activity covers the mining for the initial retorts together with all the associated concrete work and equipment/material installation necessary for proper retort operation.

16. PROCESS CONSTRUCTION

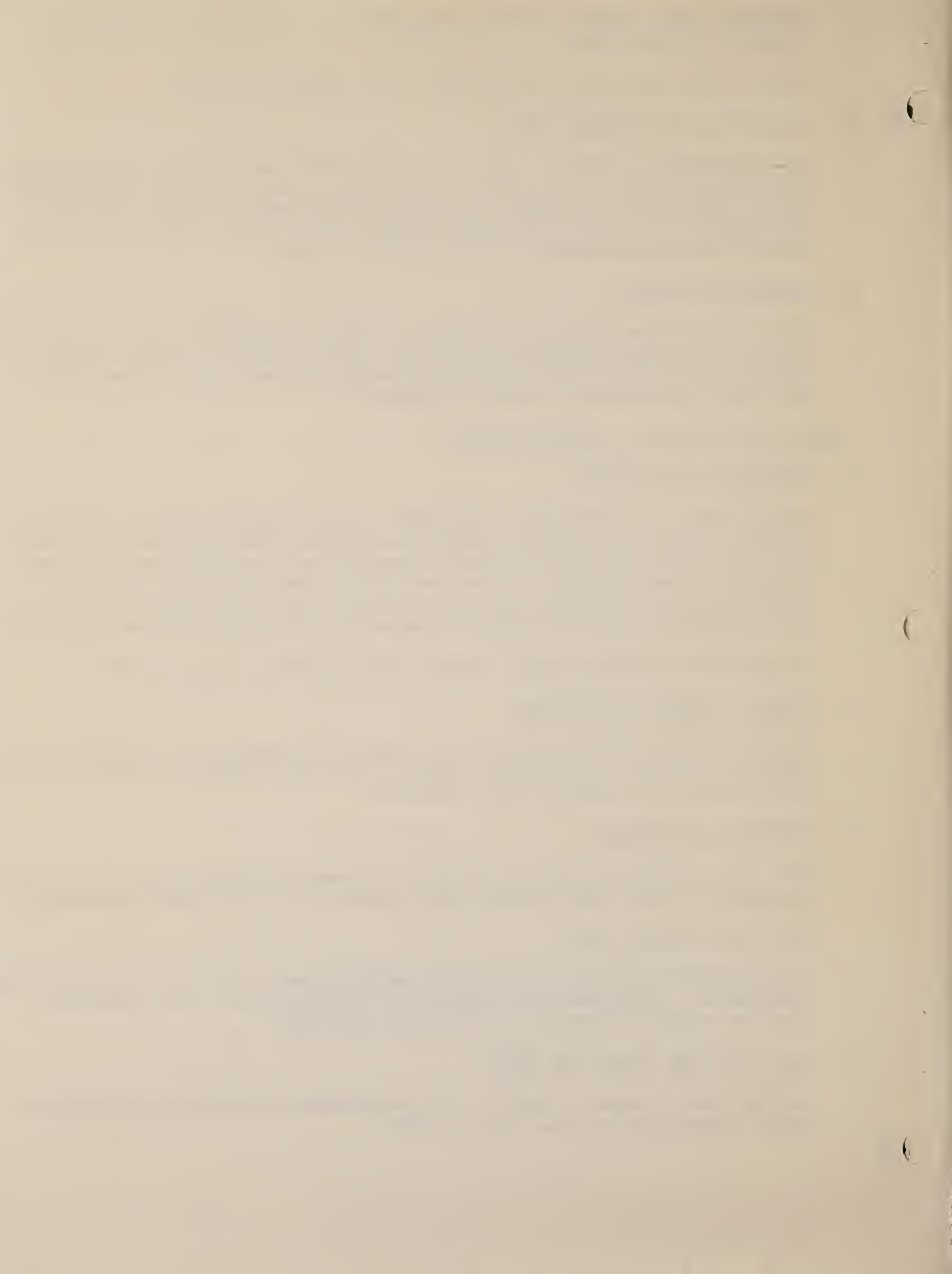
EP: This activity includes the routine engineering and procurement activities required for the surface process areas needed for all Ancillary operations.

ANCILLARY PROCESS AREAS:

This includes the construction of the surface areas required for all Ancillary operations. It includes the construction of any portion of the Commercial Plant necessary to support the Ancillary operations.

17. 10 - FT - DIA (TEMP. GAS) SHAFT

COLLAR, DRILL, CASING & CEMENT: This encompasses the complete construction below ground level of this drilled shaft.



18. PROCESSING

FLOW TEST: This is the period required to test the completed underground Ancillary initial retorts prior to the start of operations.

O: This is the operational period for the initial retorts.

PO: This is the period during which significant post operation activities take place. This involves both orderly shut down activities and production related measurements. Continued post operation monitoring is not shown.

ANCILLARY FACILITIES - RETORT CLUSTER

ACTIVITY

19. MINE-RETORT CONSTRUCTION

RETORT CLUSTER (A-2): This activity covers the mining for the Retort Cluster (A-2), and all the associated work and equipment/material installation necessary for proper retort operation.

20. UNDERGROUND CONSTRUCTION

This activity covers the installation of all Ancillary related underground equipment and materials outside the retorts. Included are both mine related service areas and process related installations.

21. PROCESSING

TRACER TEST: This is the period required to test the underground Ancillary Retort Cluster (A-2) prior to the start of operations.

O: This is the operational period for the Ancillary Retort Cluster (A-2).

PO: This is the period during which significant post operational activities take place. This involves both orderly shut down activities and production related measurements. Continued post operation monitoring is not shown.

COMMERCIAL FACILITIES CONSTRUCTION

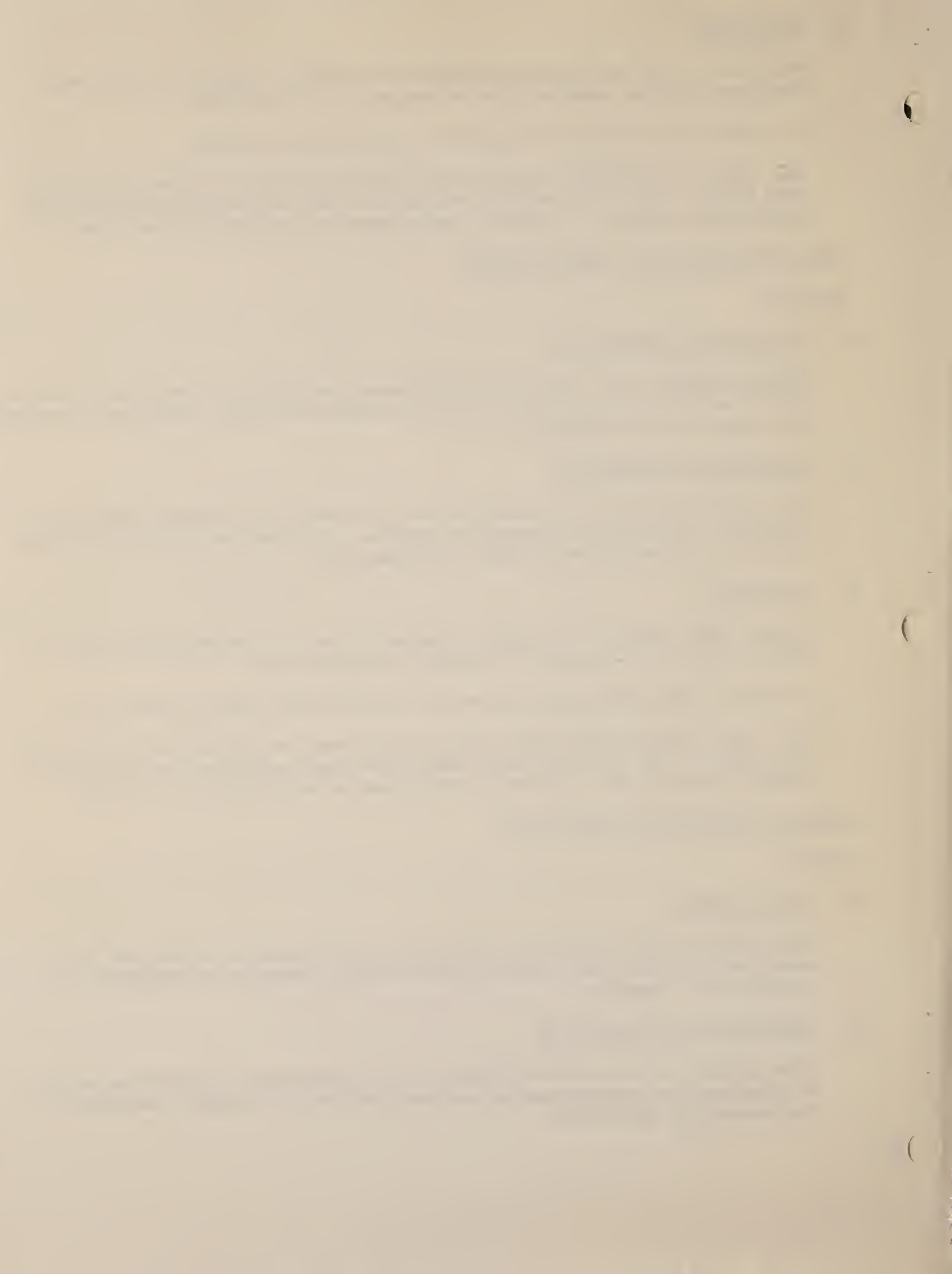
ACTIVITY

22. RETORT MINING

This period covers mining for construction of Commercial retorts and all associated concrete work and equipment/material installation necessary for proper retort operation.

23: ENGINEERING AND PROCUREMENT

This activity involves the engineering and procurement activities necessary to complete both underground and surface portions of the plant necessary for commercial operations.



24. TOTAL CONSTRUCTION

This covers the completion of all underground and surface construction necessary prior to the start of commercial plant operations.

25. OPERATIONS

This shows the start of commercial operations using the Occidental Modified In-Situ Process.





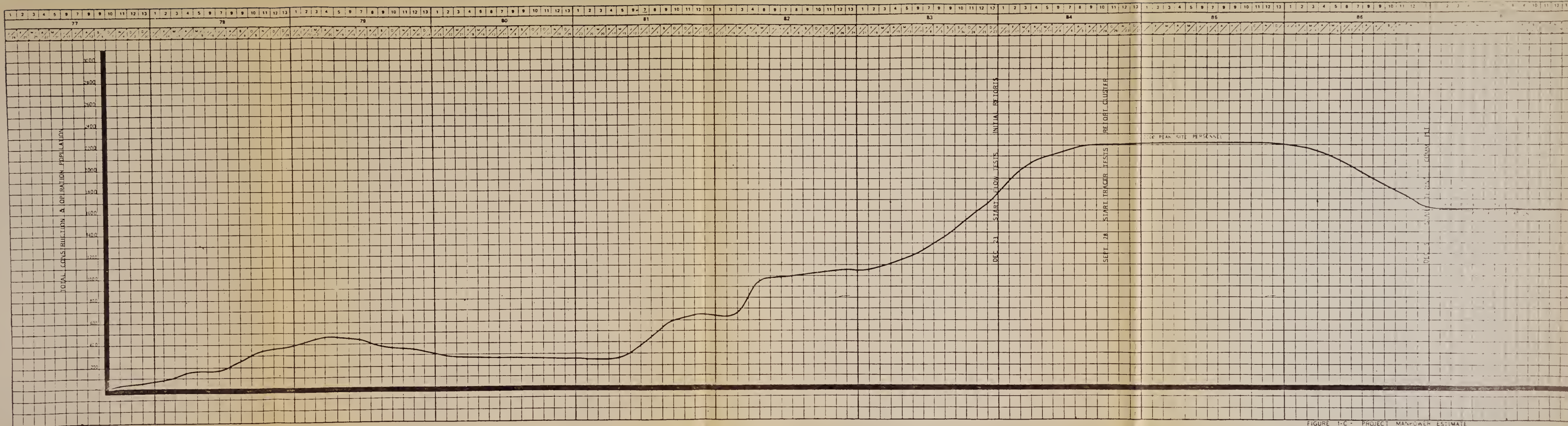
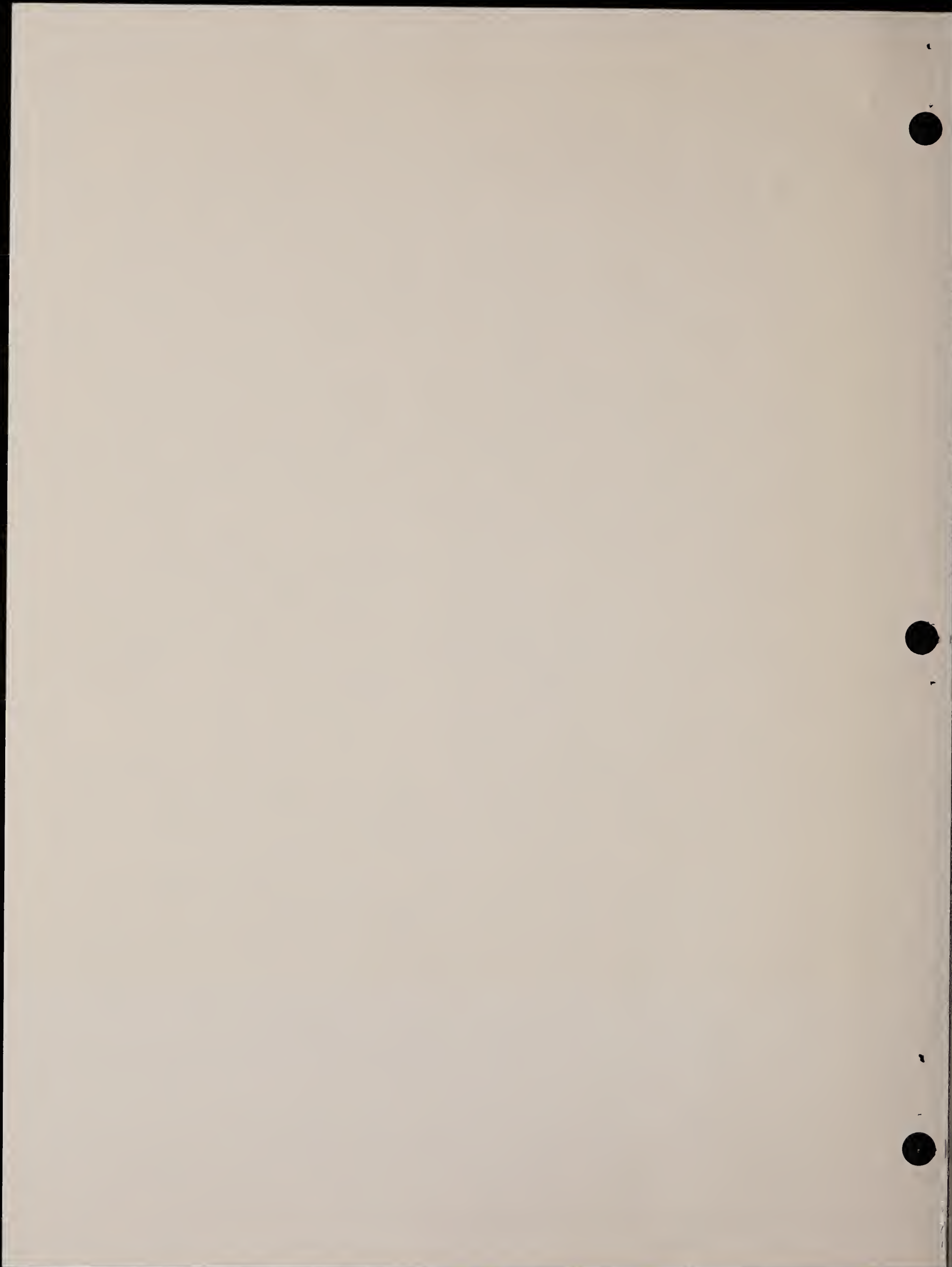


FIGURE 1-C - PROJECT MANPOWER ESTIMATE  
REVISED 4-7-78

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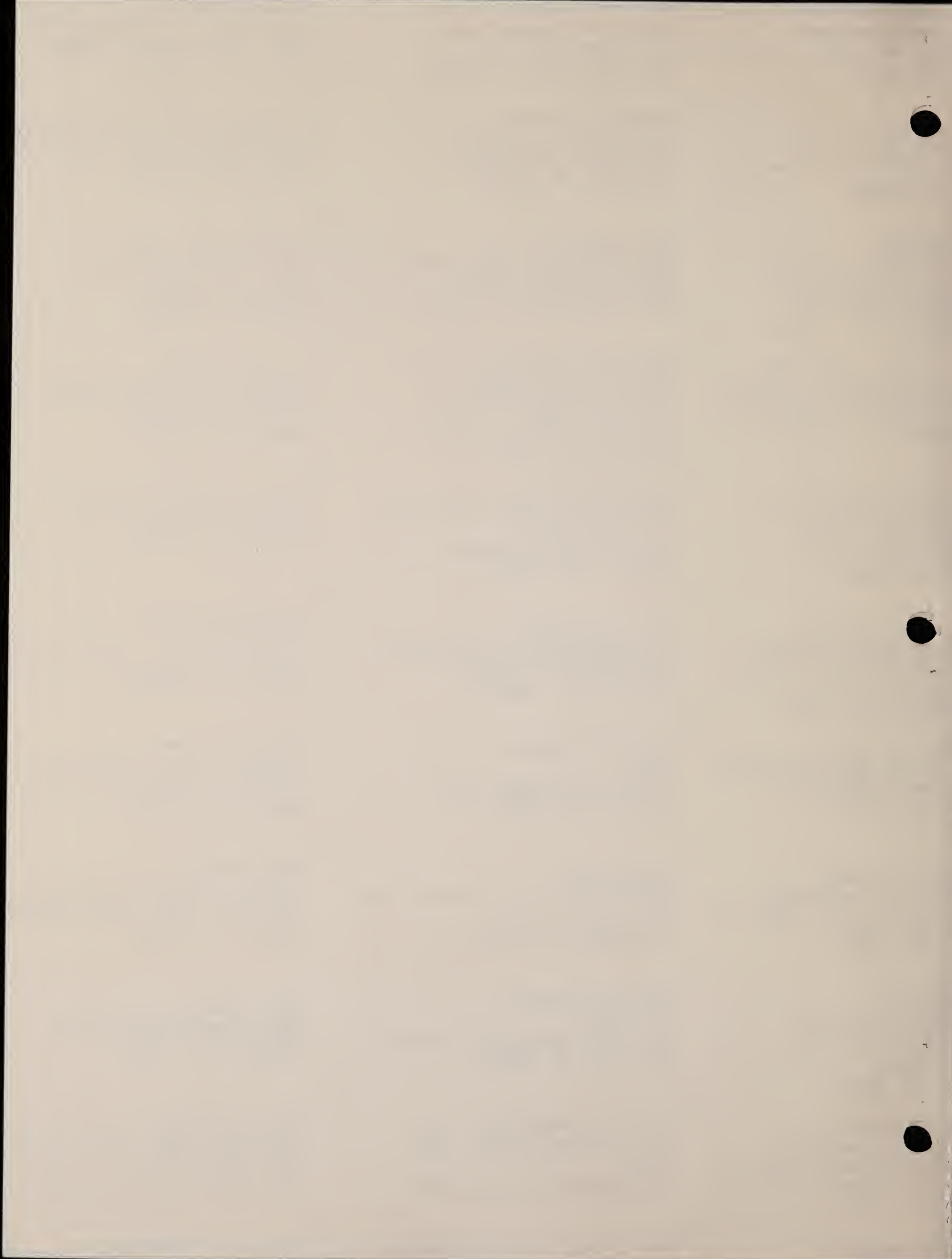
Congressman Wm. L. Armstrong Cannon House Office Bldg. Washington, D. C. 20515	G. M. Grkovic, Ass't Director Colo. Dept. of Local Affairs 1000 North 9th Street Grand Junction, CO 81501	James E. Biesecker, Dist. C. USGS-WRD Denver Fed. Ctr. Box 25046, Stop 415, Bldg. 5 Denver, CO 80225
Congressman Frank E. Evans 3 Rayburn House Office Bldg. Washington, D. C. 20515	Representative W. P. Hinman Colorado State Capitol Denver, CO 80203	Bruce Blanchard, Director Office of Env. Project Review 4256 Int. Bg., 18th & C Sts Washington, D. C. 20240
Senator Gray Hart 7 Dirksen Senate Office Bldg. Washington, D. C. 20510	Richard M. Soash Colorado State Senate State Capitol Denver, CO 80203	Harold M. Boeker U. S. F & W Service P. O. Box 25486, DFC Denver, CO 80225
Senator Floyd K. Haskell 4 Dirksen Senate Office Bldg Washington, D. C. 20510	Walter J. Waldow House of Representatives Colorado State Capitol Denver, CO 80203	Curt Smith, Area Manager BLM P. O. Box 928 Meeker, CO 81641
Congressman James P. Johnson Cannon House Office Bldg. Washington, D. C. 20515	Charles G. Jordan, Senior Plnr Dept. of Local Affairs 520 Centennial Bg., 1313 Sherman Denver, CO 80203 5 copies	A. E. Clebsch, Jr., Reg. Hy USGS-WRD Box 25046, M.S. 406, DFC Denver, CO 80225
Congresswoman Pat Schroeder 1 Longworth House Office Bldg Washington, D. C. 20515	Theodore Arnow, Dist. Chief USGS-WRD, 8002 Fed. Bldg. 125 S. State Salt Lake City, Utah 84138	Dr. A. W. Decora, Director Energy Res. Center, ERDA P. O. Box 3395 Univ. Station Laramie, WY 82071 5
Congressman Timothy E. Wirth Cannon House Office Bldg. Washington, D. C. 20515	Bob Evans, Assistant Director USGS-CR Box 25046, Stop 101, DFC Denver, CO 80225	Herbert Dishlip, Civil Engr Bureau of Reclamation 764 Horizon Drive Grand Junction, CO 81501
Governor Richard Lamm State Capitol Denver, CO 80203	R. J. Bruning Office of Ass't Secretary E&M USDI - 6650 Interior Building 18th & C Streets NW Washington, D. C. 20240	John R. Donnell, Chief OS Section, USGS Box 25046, Stop 939, DFC Denver, CO 80225
Senator Tilman Bishop Colorado State Capitol Denver, CO 80203	Dale R. Andrus, State Director BLM-CSO 700 CO St. Bank Bg., 1600 Bdwy Denver, CO 80202	Phil Gallo FEA 1200 Pennsylvania Ave, Rm 3 Washington, D. C. 20461
Representative House of Representatives Colorado State Capitol Denver, CO 80203	<i>Craig Hall</i> Gary Beethum, OS Liaison Ofcr Office of AS/L&WR, 6622 Int. Bg 18th & C Streets NW Washington, D. C. 20240	Wm. C. Gardner, Dist. Mgr. MSHA - USDL 603 Miller Court Lakewood, CO 80215



Nat'l Resource Library Carl Messick Interior Bldg. & C Streets NW ington, D. C. 20240 2 cc	Union Oil Company of Calif. c/o M. Kavilisch 505 Valley Federal Plaza Grand Junction, CO 81501	Barman Lawrenson Mtn. Plains Fed'l Reg'l Coun 1961 Stout Street, #14041 Denver, Co 80202
College Library Martin Wenger Box 2647 Junction, CO 81501	Manager, Oil Shale Department Superior Oil Company P. O. Box 1521 Houston, TX 77001	Ms. Alys Novak, V-P & Ed. Dir Mtn. Empire Publishing, Inc. 180 Cook St., Suite 414 Denver, Co 80206
County Public Library George VanCamp Grand Avenue Junction, Co 81501	Harry McCarthy 433 Gernsey Avenue Bakersfield, CA 93309	Paul S. Rattle, Sec'y & Mgr. Utah Mining Assoc. 825 Kearns Bldg. Salt Lake City, UT 84104
Finder Library System Norman Sams Rose Regional Library Rose, CO 81401 2 cc	William Trebilcock, V-P Geosystems Corporation 274 Riverside Avenue Westport, CT 06880	Sierra Club Legal Defense Fu 335 Republic Building Denver, CO 80202 Attn: Allen Stokes
Public Library Box 544 e, Colorado 81650	Lowell Page Sunoco Energy Co. 12700 Park Central Place #1500 Dallas, TX 75251	John D. Vanderhoof, Pres. Club 20 634 Main Street Grand Junction, CO 81501
Lake City Public Library East 5th Street Lake City, UT 84111	William H. Budd, Jr., Ex. Sec'y Wyoming Mining Association P. O. Box 3076 Casoer, WY 82601	Robert M. Weaver, Exec. Dir. Colo. Council of Trout Unlin 4260 East Evans Avenue, #3 Denver, CO 80222
Rivers Library System Beryl Forrester Castle, CO 81647 7 cc	David R. Cole, Sec'y & Mgr. Colorado Mining Assoc. 330 Denver Hilton Office Bldg. 1515 Cleveland Place Denver, CO 80202	Mary Louis Giblin c/o Daily Sentinel 734 South 7th Street Grand Junction, CO 81501
ah County Public Library East Main Street al, UT 84078	David C. Durant NHP&Q 760 Horizon Drive Grand Junction, Co 81501	Grand Junction Chapter AIME
ho Development Corp. S. Third d Junction, Co 81501	Pat Halligan, Exec. Director Colorado West C O G Box 351 Rifle, CO 81650	CO Open Space Council Mining Workshop 2239 Colfax Avenue Denver, CO 80206
. K. Billa eland Cliffs Iron Co. . Box 1211 e, CO 81650	Doug Henderson, Ex. As't Rocky Mtn Oil & Gas Assoc. 950 Petroleum Club Building Denver, CO 80202	Friends of the Earth 2239 East Colfax Avenue Denver, CO 80206

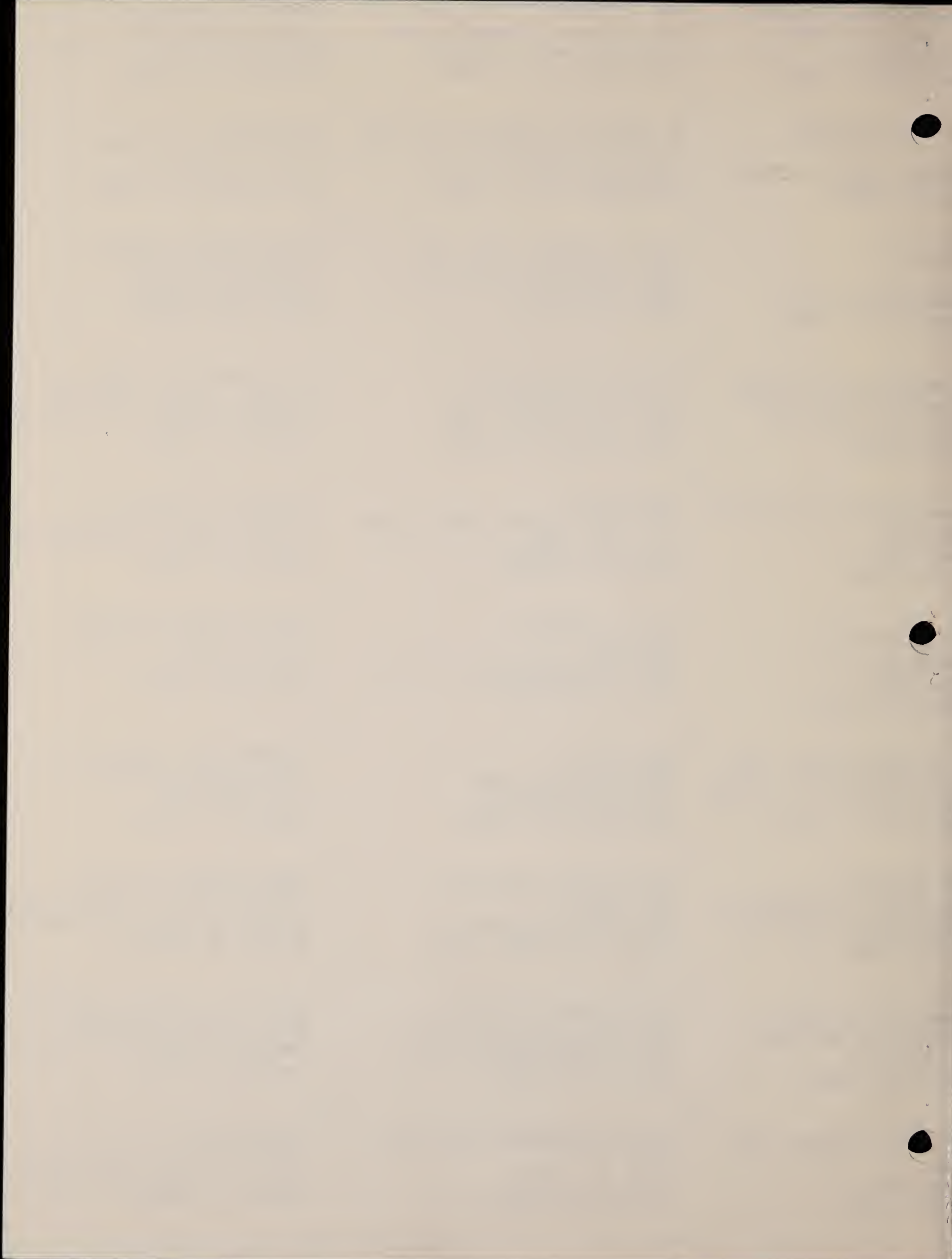


<p>O. Ash, Chairman            Adv. Advisory Panel            Bldg. 67, DFC            Denver, CO 80225</p>	<p>Mr. Paul T. Sant            Bureau of Reclamation            P. O. Box 11568            Salt Lake City, UT 84147</p>	<p>William Evans            Department of Transportation            1050 - 17th Street, #1822            Denver, CO 80202</p>
<p>Dr. Donald            820-A, Building 67            Denver, CO 80225</p>	<p>Richard T. Strait            National Park Service            655 Parfet, POB 25287            Lakewood, CO 80225</p>	<p>Charles E. Jaten            Mt. Plains Fed. Reg'l Council            14037 Fed Ofc Bldg, 1961 Stout            Denver, CO 80294</p>
<p>Bennethum            Director of Ass't Secretary            &amp; Water Resources            Interior Building            Washington, D. C. 20240</p>	<p>Director and            Mrs. Adelyn H. Logan, Realty Ofcr            Uintah &amp; Ouray Agency            Fort Duchesne, UT 84026 2 cc</p>	<p>Ray McKinney, Ass't to            Reg'l Administrator            Dept. of Housing &amp; Dev.            Federal Building            Denver, Co 80202</p>
<p>Project Leader, Oil Shale            Director of Biological Services            &amp; Wildlife Service, USDI            Washington, D. C. 20240</p>	<p>Raymond W. Jackson            Phoenix Area Office            Bureau of Indian Affairs            P. O. Box 7007            Phoenix, AZ 85011</p>	<p>Mr. Terry Thoem            EPA Tech. &amp; Invest. Section            1960 Lincoln Street            Denver, CO 80203</p>
<p>Harold M. Boeker            Director of Wildlife Service            17 West 6th Avenue            Denver, Box 25486, DFC            Denver, Co 80225</p>	<p>Regional Director            Bureau of Outdoor Recreation            P. O. Box 25387            Denver Federal Center            Denver, CO 80225</p>	<p>Representative N. E. Dick            State Capitol Building            Denver, Co 80203</p>
<p>Harold N. Coulombe            Project Manager, WELUT            Director of Fish &amp; Wildlife Service            Howes Street            Collins, CO 80521</p>	<p>Dr. H. S. Boyne            National Bureau of Standards            Department of Commerce            Boulder, CO 80302</p>	<p>Burman Lorenson            OS Coordinator            518 Cent. Bldg., 1313 Sherman            Denver, Co 80203</p>
<p>Robert L. Bolmer            Director of Mining Research Center            Denver, DFC, Building 20            Denver, Co 80225</p>	<p>Joseph W. Cover            DHEW            Federal Building, 11037            Denver, Co 80294</p>	<p>Robert D. Siek            CO Dept. of Nat'l Resources            718 Cent. Bldg., 1313 Sherman            Denver, Co 80203</p>
<p>Glen D. Fulcher            Director of Land Management            Denver Fed'l Center, Bldg. 50            Denver, CO 80225</p>	<p>Grant Davis            SEAM Office, U. S. Forest Serv.            145 Grand Avenue            Billings, MT 59102</p>	<p>Joan Martin            CO Dept. of Nat'l Resources            718 Cent. Bldg., 1313 Sherman            Denver, Co 80203</p>
<p>William Roberts            State Office, BLM            CO State Bank Bldg            Broadway            Denver, CO 80202</p>	<p>Andrew W. Decora            LERC-ERDA            Box 3395, University Station            Laramie, WY 82071</p>	<p>Anne Vickery            5255 Pennsylvania Avenue            Boulder, CO 80303</p>
<p>William Madsen            Deputy Solicitor            Denver Fed'l Center, Bldg. 67            Denver, Co 80225</p>	<p>Ralph E. Franklin            Div. of Biom. &amp; Env. Res.            ERDA            Washington, D. C. 20545</p>	<p>Dr. Joan Coles            UT Energy Cons. &amp; Dev. Council            1357 Third Avenue            Salt Lake City, UT 84103</p>
<p>Donald E. Malde</p>	<p>Reg'l Rep. of the Secretary</p>	<p>Gordon E. Harmston</p>





Howard, State Director 50, Univ. Club Bldg. S. Temple Lake City, UT 84111	Paul Petzrick DOE, Office of Communications 20 Massachusetts Ave. NW Washington, D. C. 20545	Roland V. Wilson, Jr. Subdist. Mgr, MSHA 603 Miller Court Lakewood, CO 80215
e Ho, CR Manager CD Italia, 7200 W. Alameda d, CO 80225	Dr. Matthew J. Reilly, As't Dir. DOE, Env. & Safety, Fossil Energy 20 Massachusetts Ave. NW Washington, D. C. 20545	Bert Baker Colo. Div. of Wildlife P. O. Box 2287 Fort Collins, CO 80522
Johnson Massachusetts Ave NW ngton, D. C. 20545	Paul L. Russell, Res. Dir. BOM, Denver Mining Res Ctr Bldg. 20, DFC Denver, CO 80225	Norman Blake, Director CO Bureau of Mines 1313 Sherman Street Denver, CO 80203
O. Maberry, Program Mgr. y Lands Program, USGS 5046, M.S. 913, DFC r, CO 80225	Dr. Kenneth Russell CO. Coop. Wildlife Unit Coop. Units Bldg., CSU Fort Collins, CO 80523	C. J. Cooper, St. Engr. CO Dept. of Nat. Resources 818 Cent. Bldg., 1313 Sherman Denver, CO 80203
Richard Carnow, Acting Dir. W Service 16, DFC r, CO 80225	Brit Storey Nat'l Adv. Council, Rev & Compl. P. O. Box 25085 Denver, CO 80225	Charles G. Jordan CO Division of Planning 520 Cent. Bldg., 1313 Sherman Denver, CO 80203
e G McMillion , EMSL-LV Box 15027 gas, NV 89114	Ellis F. Sedgley USDA-SCS 2490 West 26th Avenue, Rm 314 Denver, CO 80211	Jack R. Grieb, Director Div. of Wildlife, CO DOW 6060 Broadway Denver, CO 80216
m. E. Mott, Assist. Dir. uclear Fuels, Div. of Env. Tech, ERDA, M. S. A-13209 ngton, D. C. 20545	Reid Stone USGS-Geothermal Ops. 345 Middlefield Rd. Menlo Park, CA 94025	Stephen Hart, State Historic Preservation Officer P. O. Box 8749 Denver, CO 80201
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on M, Subdist. Mgr. WRD Box 810 er, CO 81641	Harvey Welloughby, Reg'l Dir. F&WS P. O. Box 17107 Denver, CO 80217	Lee Woolsey Office of the Governor 518 Cent. Bldg., 1313 Sherman Denver, Co 80203



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Mayor, City of Meeker  
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Env. Trace Sub. Res. Program  
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Dr. Thys B. Johnson, Head  
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Colorado School of Mines  
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Talliro  
Division of Wildlife  
Broadway  
, CO 80216

Frank Cooley  
First Nat'l Bank Building  
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Ron Lemon, Director  
Office of U-Industry Relatio  
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Boulder, CO 80302

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d Junction, Co 81501

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Dept. of Range Sciences  
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Jolly, Chairman  
ield County Commissioners  
. Box 640  
wood Springs, CO 81601

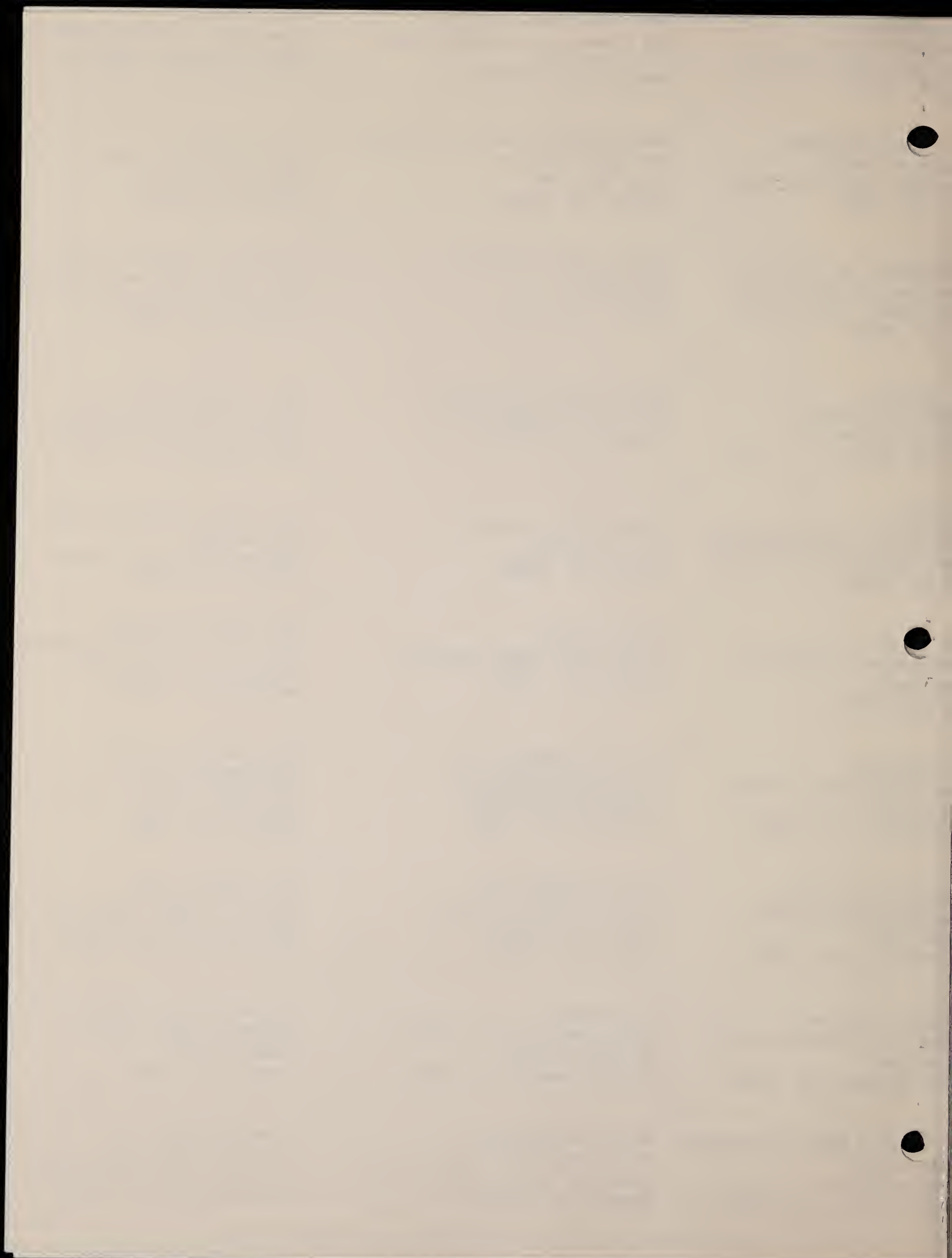
Jack Cotter  
Energy R&D Office, TRW Inc.  
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Redondo Beach, CA 90278

Coila Pottorf, Fed. Doc. Li  
Colorado State Library  
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Wit sky, Dir. of Planning  
ield County  
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Robert Chancellor  
Rio Blanco Nat'l Gas Co.  
718-17th Street, Suite 2000  
Denver, CO 80202

Fred Schmidt  
Document Librarian  
Colorado State University  
Fort Collins, CO 80523



DETERMINATION OF LEASE AND DDP APPROVAL COMPLIANCE

Nature of Submission: Design Plan ( ) Permit ( ) Condition of Approval ( ) Other (X) DEVELOPMENT SCHEDULE  
Specify

Date Submitted 3/17/78 Date Decision is Due      /      /      Date Completion Staff Review 3/24/78

Title of Submission REVISED DDP DEVELOPMENT SCHEDULE

SMIS Code: Doc. # 7/8/0/0/5/0/8/ File 0/3/ Area 0/2/2/ Subject 1/0/3/3/, 1/0/2/0/, 1/5/1/6/

Administering Agency: AOSS F. Status: Outside Comments Requested ( )

From: \_\_\_\_\_

Date of Determination of Lease & DDP Compliance:      /      /     

Supplemental Material Submitted ( )

Date of Approval by Administering Agency:      /      /     

Nature: \_\_\_\_\_

\*\*\*\*\*

NATURE/SUBJECT OF SUBMISSION (Coordinator) \*

(continued on back of sheet)

Revised development schedule appreciative of time \*

required to actually sink shafts \*

\*\*\*\*\*

APPLICABLE LEASE SECTIONS/DDP SECTION/CONDITION OF APPROVAL (Reviewers) -- use back of sheet if more space needed --

Section(s)	Description	Reviewer's Notes

STAFF REVIEW (By Persons Assigned Below)

Remarks/Recommendations

Reviewer(s)	Lease/DDP Compliance		
	Yes	No	Conditional
STAFF MEMBERS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Initial your remarks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
the right or on	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
back of this sheet)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

-use back of sheet if more space is needed-  
(Explain if "No", or "Conditional" Checked)

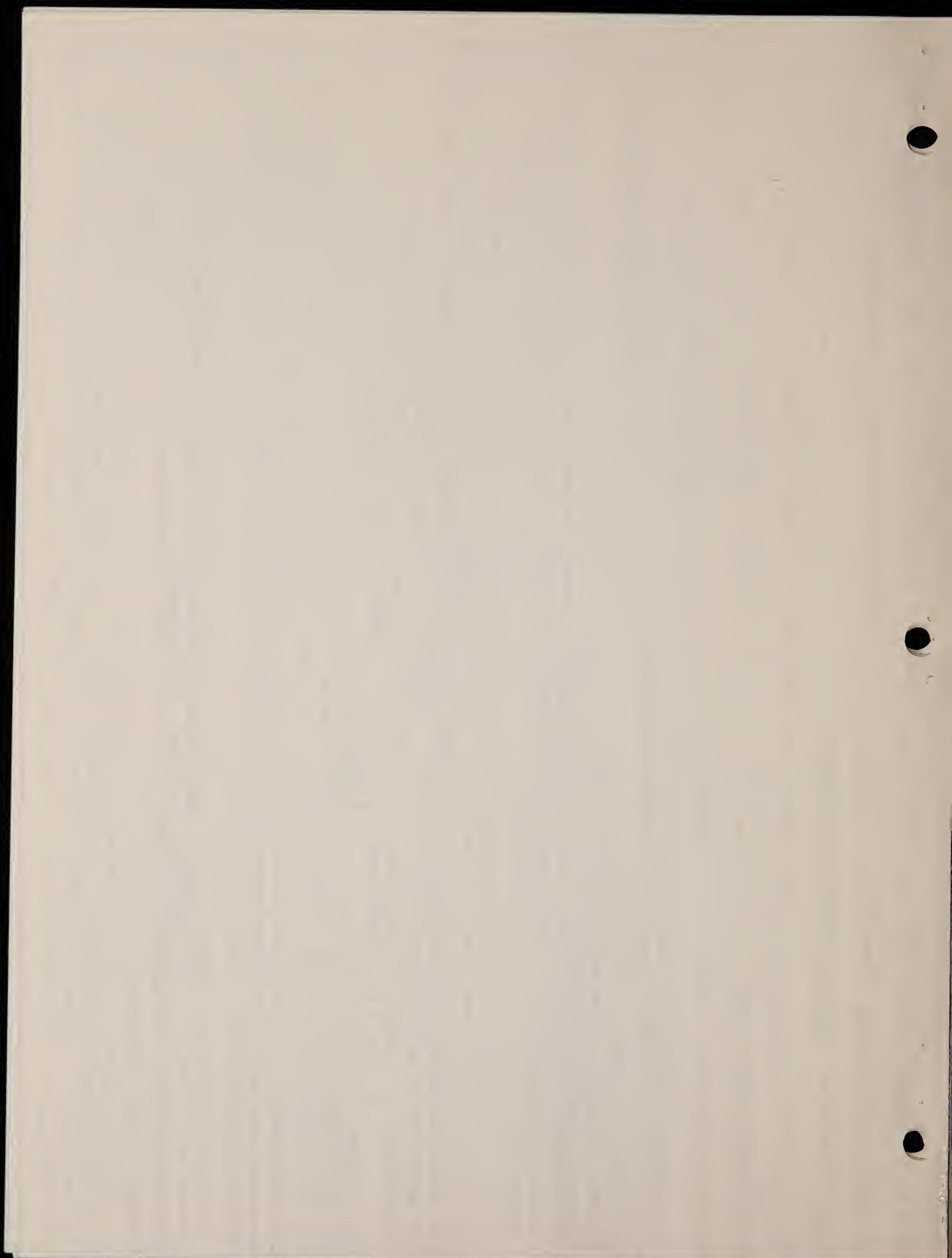
(OVER)

COMPOSITE RECOMMENDATIONS TO MINING SUPERVISOR (Coordinator)

*All comments noted. Decision by AOSS will be made following distribution of schedule changes to OSEAL + DDP recipients.*

DOCUMENT TRACKING (Coordinator)

- Submission Logged In ()
- Reviewer(s) Assigned ()
- Original Coded and Filed ()
- Original Copied and Attached to this Form for In-house Review ()
- All Reviews Completed ()
- All Items Above Completed ()
- Composite Recommendations with Copy of Submittal Forwarded to AOSS ()
- Final Determination Made ()
- This Form Forwarded for Inclusion in Document File ()





Ed Handell - Appears to be reasonable considering granting of shafts, may be room for improvement in sinking schedule by dewatering w/wells which would eliminate grouting time. Do we have sinking schedule showing round clock shift operation? Probably should have that clarified to justify diligence question, yes

Abstract States  
1 shift per day.

Brady - I agree with Ed on the last statement. Also, has the lessee committed to the Horizontal development method, as stated under item 3 of this submittal? Should ~~be~~ this commitment be specifically documented by a revision in the DDP? no change needed

11

apparently so

DP contemplated  
with UFF + HFF  
words

Dieter - Appears OK - Need to see if this will alter any of the monitoring Plan time schedule. discussed w/ Jereee

To be checked by  
each review of  
Mon Prog Plan

B.P. ✓

Joy ✓

seems like a long time to punch a hole in the ground

contingencies +  
other cost from  
eng. design

Lothe, This should be reflected in the monitoring plan + proves the necessity of gearing that program to actual development phases and not later.

agree!

copies made &  
passed out  
1/23/78

Be certain that the lessee have provided this info to EPA + state. Also each of the new schedule




✓  
FELIX: YOU WILL PROBABLY SEE THE SCHEDULE EXTEND AGAIN, TO

P. Tucker: appears in order since the main change is only schedule and not change of methodology. AS others have mentioned, this schedule change will have to coincide with monitoring program and maybe use actions completed instead of dates, that could easily slip again

agree ✓





Department of Local Affairs  
Colorado Division of Planning

Philip H. Schmuck, Director



Richard D. Lamm, Governor

MEMORANDUM

DATE: May 25, 1978

TO: Colorado Clearinghouse

FROM: Philip H. Schmuck *Phil*

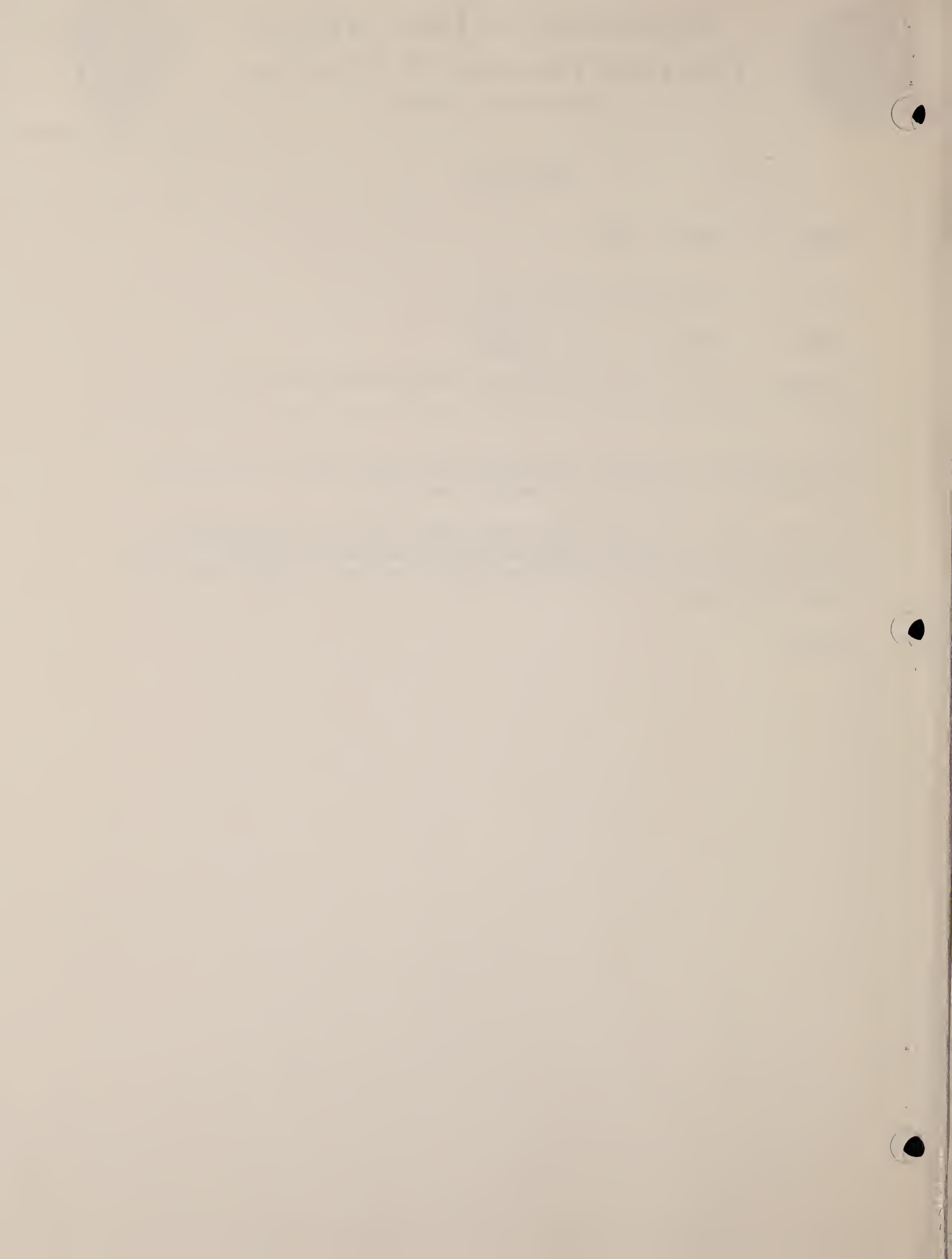
SUBJECT: U. S. Geological Survey--Manpower Schedules for C-b


---

The Division of Planning appreciates the opportunity of reviewing the revised development and manpower schedules.

We find them to be quite consistent with policies recommended by the division in that the manpower table indicates a gradual buildup, peaking at a late date, and tapering off to the permanent work force rather gradually.

PHS/btm





Department of Local Affairs  
Colorado Division of Planning

Philip H. Schmuck, Director



Richard D. Lamm, Governor

May 31, 1978

RECEIVED

JUN 2 1978

OFFICE OF  
AREA OIL SHALE SUPERVISOR

Area Oil Shale Supervisor  
Room 300, Mesa Federal Savings Building  
131 North 6th Street  
Grand Junction, Colorado 81501

SUBJECT: Development and Manpower Schedules  
for Oil Shale C-b DDP  
U.S. GEOLOGICAL SURVEY

Gentlemen:

The Colorado Clearinghouse has received and processed the above-referenced plan for review by State agencies. Enclosed please find the comments of interested agencies.

Thank you for the opportunity to review this matter.

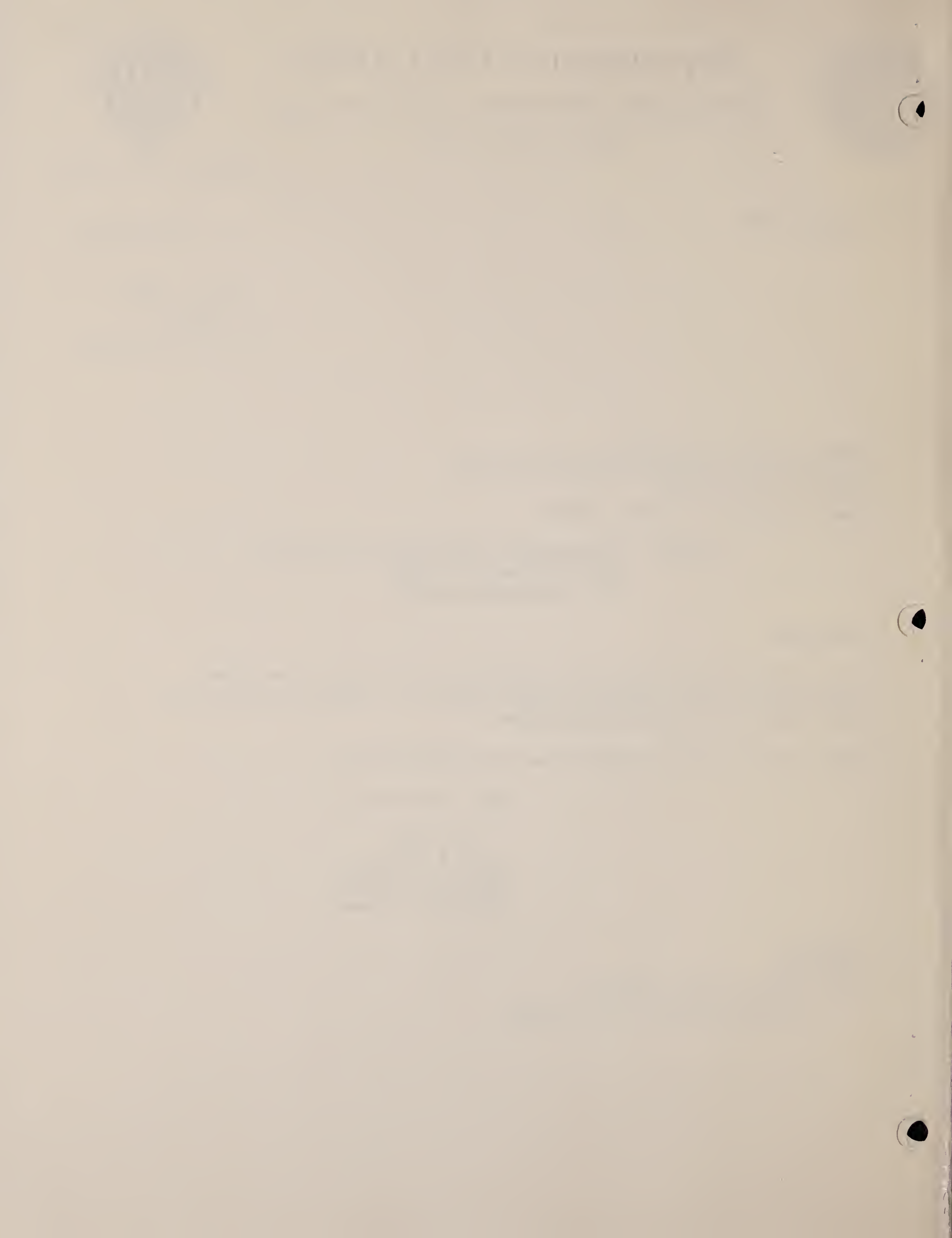
Very truly yours,

  
Stephen O. Ellis  
Principal Planner

SE/NN/je

Enclosure

cc: Office of the Governor  
Colorado Division of Planning





STATE OF COLORADO



JOHN W. ROLD  
Director

COLORADO GEOLOGICAL SURVEY  
DEPARTMENT OF NATURAL RESOURCES

715 STATE CENTENNIAL BUILDING - 1313 SHERMAN STREET  
DENVER, COLORADO 80203 PHONE (303) 839-2611

JUN 01 1978  
DIV. OF PLANNING

June 1, 1978

Mr. Stephen O. Ellis, Principal Planner  
Colorado A-95 Clearinghouse  
1313 Sherman Street, Room 520  
Denver, CO 80203

Dear Mr. Ellis:

RE: DEVELOPMENT AND MANPOWER  
SCHEDULES FOR OIL SHALE C-b  
DDP

We have conducted a staff review of the Development and Manpower Schedules for Oil Shale C-b DDP from the standpoint of the Colorado Geological Survey's interest. We see no problem with the plan.

Sincerely,

John W. Rold  
Director and State Geologist

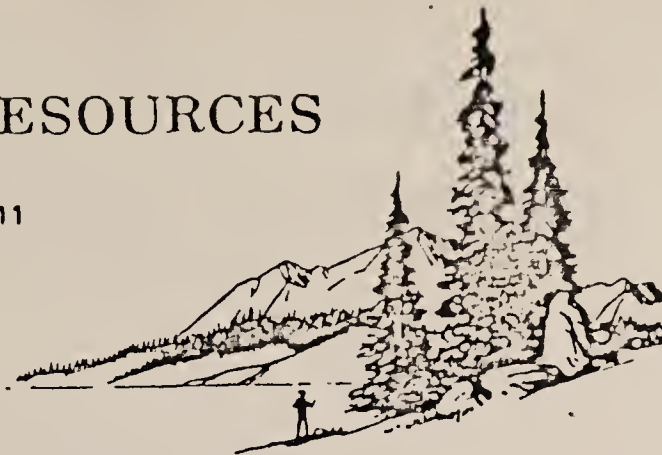
JWR/ds



# DEPARTMENT OF NATURAL RESOURCES

HARRIS D. SHERMAN, Executive Director  
1313 Sherman St., Room 718, Denver, Colorado 80203 839-3311

- Board of Land Commissioners
- Division of Administration
- Division of Mines
- Division of Parks & Outdoor Recreation
- Division of Water Resources
- Division of Wildlife
- Geological Survey
- Oil and Gas Conservation Commission
- Soil Conservation Board
- Water Conservation Board
- Mined Land Reclamation



RECEIVED

JUN 7 1978

OFFICE OF  
AREA OIL SHALE SUPERVISOR  
U.S. G.S.

June 6, 1978

Mr. Peter Rutledge  
U. S. Geological Survey  
Conservation Division  
Area Oil Shale Supervisor  
131 N. 6th, Suite 300  
Grand Junction, CO 81501

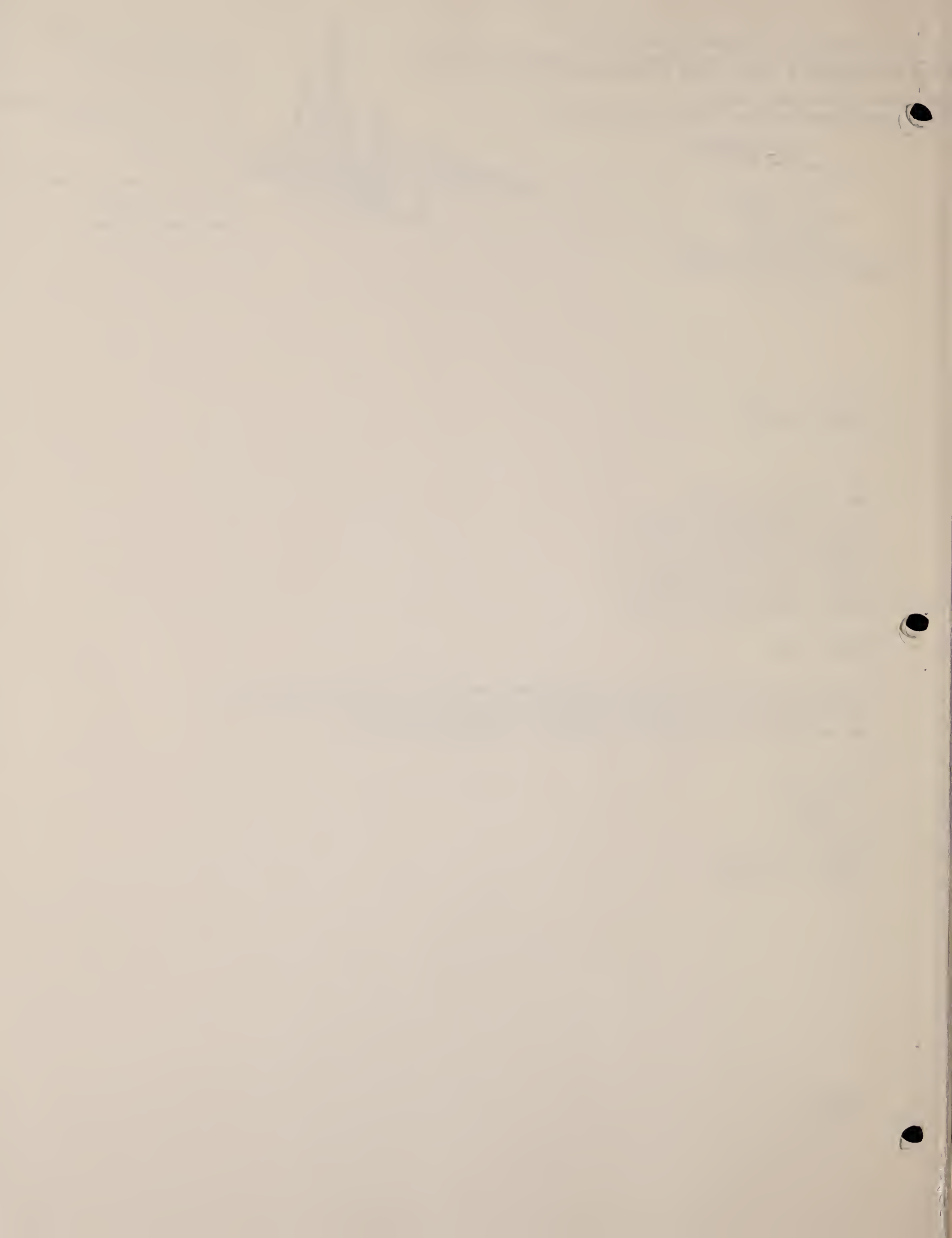
Dear Pete:


The Department of Natural Resources has reviewed the Revised Development and Manpower Schedules for Cb. The Department sees no significant problems with the revised schedule.

Sincerely,

Robert D. Siek  
Deputy Director

RDS:lw





Department of Local Affairs  
Colorado Division of Planning

Philip H. Schmuck, Director



Richard D. Lamm, Governor

June 6, 1978

RECEIVED

JUN 8 1978

OFFICE OF  
AREA OIL SHALE SUPERVISOR  
H. C. S.

Area Oil Shale Supervisor  
Room 300, Mesa Federal Savings Building  
131 North 6th Street  
Grand Junction, Colorado 81501

SUBJECT: Development and Manpower Schedules for Oil Shales c-b DDP

Gentlemen:

Enclosed please find the comments of the Colorado Geological Survey concerning the above referenced project. These comments arrived after submittal of other responses, but they supplement our previous transmittal.

Very truly yours

Stephen O. Ellis  
Principal Planner

SOE/sfh

cc: Office of the Governor  
Colorado Geological Survey  
Colorado West Council of Governments



STATE OF COLORADO



JOHN W. ROLD  
Director

D. D. LAMM  
ERNOR

COLORADO GEOLOGICAL SURVEY  
DEPARTMENT OF NATURAL RESOURCES

715 STATE CENTENNIAL BUILDING - 1313 SHERMAN STREET  
DENVER, COLORADO 80203 PHONE (303) 839-2611

JUN 01 1978  
DIV. OF PLANNING

June 1, 1978

Mr. Stephen O. Ellis, Principal Planner  
Colorado A-95 Clearinghouse  
1313 Sherman Street, Room 520  
Denver, CO 80203

Dear Mr. Ellis:

RE: DEVELOPMENT AND MANPOWER  
SCHEDULES FOR OIL SHALE C-b  
DDP

We have conducted a staff review of the Development and Manpower Schedules for Oil Shale C-b DDP from the standpoint of the Colorado Geological Survey's interest. We see no problem with the plan.

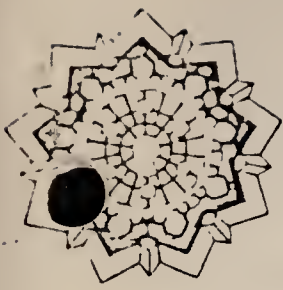
Sincerely,

John W. Rold  
Director and State Geologist

JWR/ds







# Department of Local Affairs Colorado Division of Planning

Philip H. Schmuck, Director



1876

Richard D. Lamm, Governor

June 6, 1978

RECEIVED

JUN 8 1978

OFFICE OF  
AREA OIL SHALE SUPERVISOR  
MESA

Area Oil Shale Supervisor  
Room 300, Mesa Federal Savings Building  
131 North 6th Street  
Grand Junction, Colorado 81501

SUBJECT: Development and Manpower Schedules for Oil Shales c-b DDP

Gentlemen:

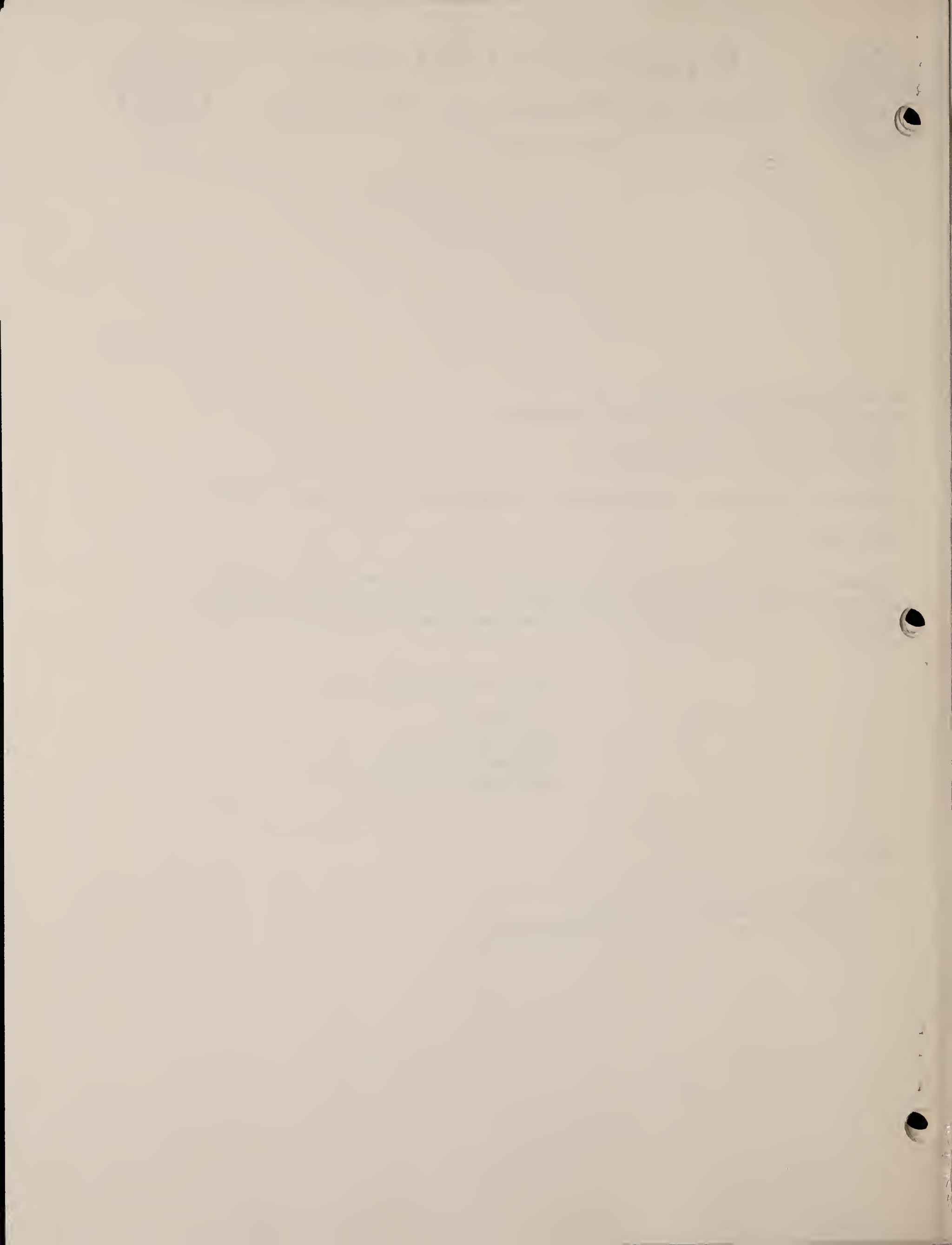
Enclosed please find the comments of the Colorado Geological Survey concerning the above referenced project. These comments arrived after submittal of other responses, but they supplement our previous transmittal.

Very truly yours

Stephen O. Ellis  
Principal Planner

SOE/sfh

cc: Office of the Governor  
Colorado Geological Survey  
Colorado West Council of Governments





COLORADO DEPARTMENT OF HEALTH

4210 E. 11TH AVENUE DENVER 80220 PHONE 388-6111 EXT. 329

ANTHONY ROBBINS, M.D., M.P.A. EXECUTIVE DIRECTOR

DATE: June 6, 1978

SUBJECT: NON-STATE ASSISTANCE

JUN 07 1978  
DIV. OF PLANNING

REVIEW AND COMMENTS

TO: Mr. Stephen O. Ellis  
Colorado Clearinghouse  
Division of Planning

PROJECT TITLE: Development and Manpower Schedules for Oil Shale C-b DDP, U.S. Geological Survey

STATE IDENTIFIER: NA

COMMENTS DUE BY: May 30, 1978

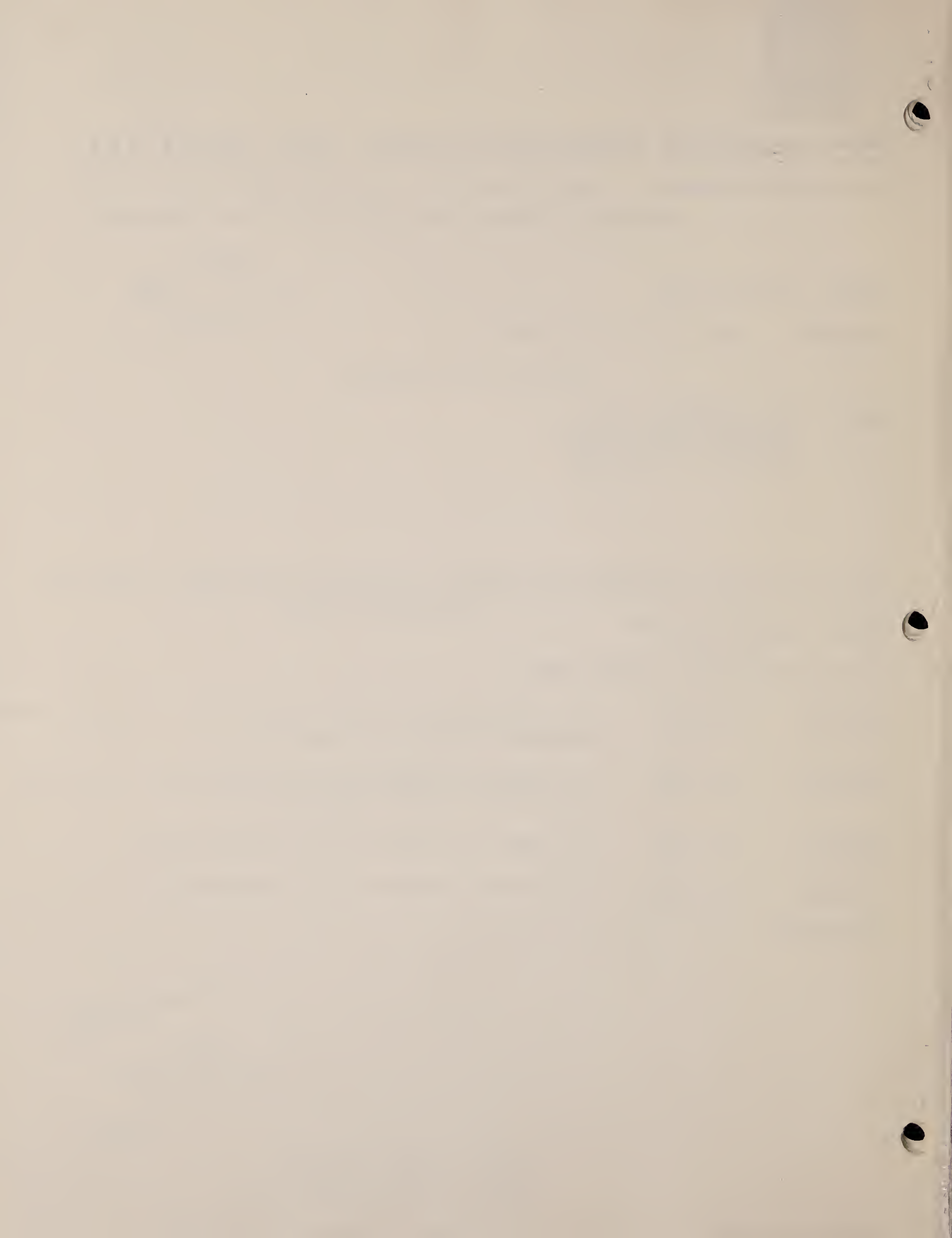
- Yes  No  Is this project consistent with the goals and objectives of this agency?
- Yes  No  Is there evidence of overlapping of duplication with other agencies?
- Yes  No  Is meeting desired with applicant?
- Yes  No  A 15-day extension is requested.

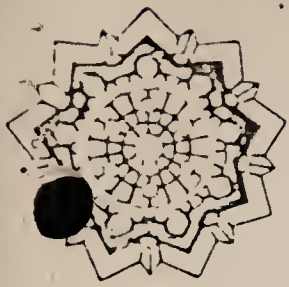
Comments:

RECEIVED  
JUN 12 1978  
OFFICE OF  
OIL SHALE SUPERVISOR

*Ron Simsick*  
Name, Title & Phone

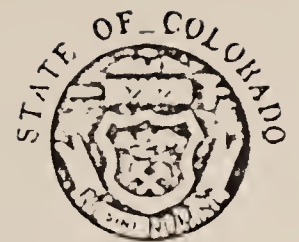
Ron Simsick, Program Administrator





Department of Local Affairs  
Colorado Division of Planning

Philip H. Schmuck, Director



1876

Richard D. Lamm, Governor

June 8, 1978

RECEIVED  
JUN 12 1978  
OFFICE OF  
AREA OIL SHALE SUPERVISOR

Area Oil Shale Supervisor  
Mesa Federal Savings Building, Room 300  
131 North 6th Street  
Grand Junction, Colorado 81501

SUBJECT: Development and Manpower Schedules for Oil Shales c-b DDP

Gentlemen:

Enclosed please find the comments of the Colorado Department of Health regarding the above-referenced project. This submittal supplements our previous responses.

Thank you for the opportunity to review this matter.

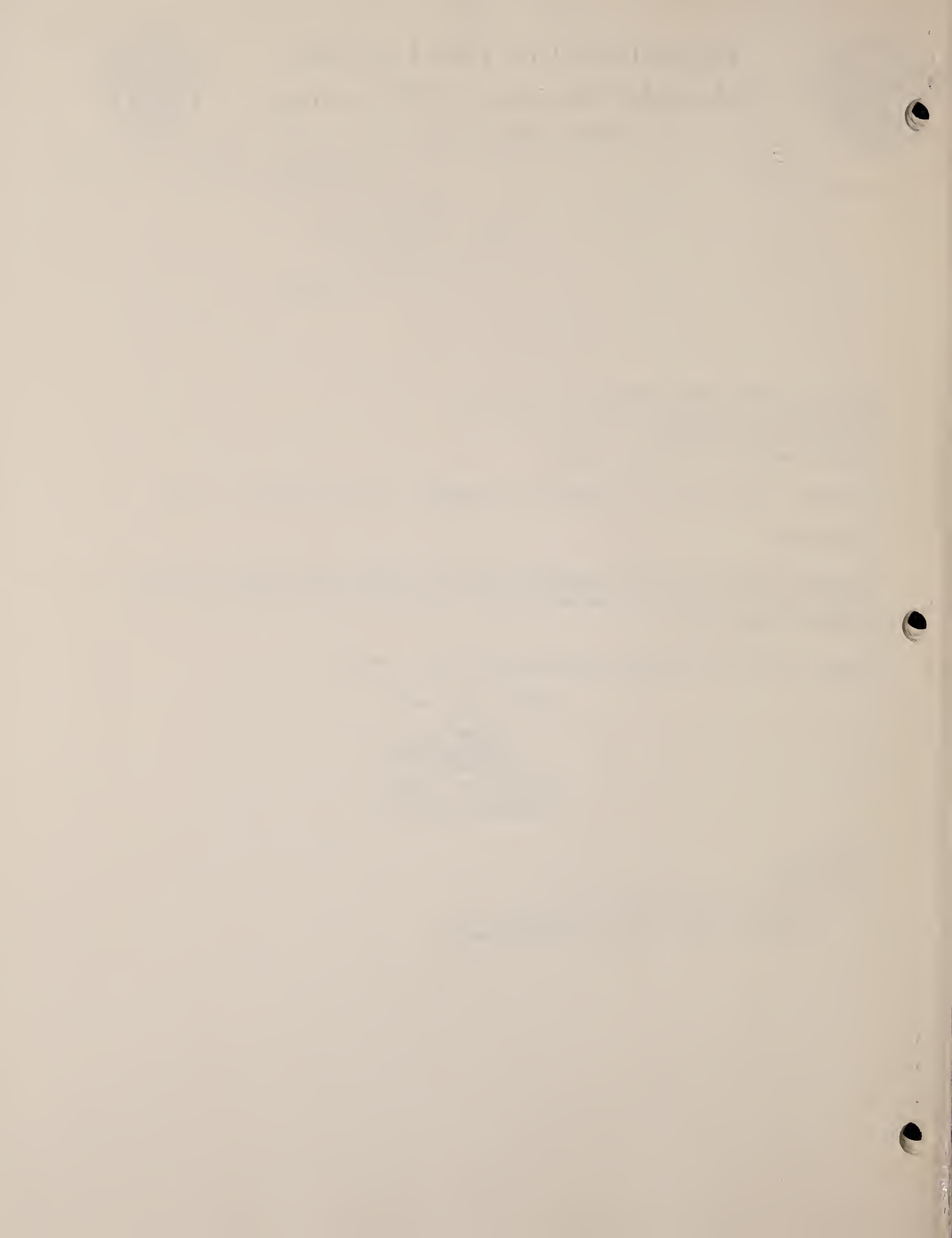
Very truly yours,

Stephen O. Ellis  
Principal Planner

SE/NN/je

Enclosure

cc: Office of the Governor  
Colorado Department of Health  
Colorado West Council of Governments



# Rio Blanco Natural Gas Co.

2000 WESTERN FEDERAL SAVINGS BUILDING  
718 17TH STREET  
DENVER, COLORADO 80202  
(303) 292-1350

June 15, 1978

RECEIVED  
JUN 16 1978

OFFICE OF  
AREA OIL SHALE SUPERVISOR

U. S. Geological Survey  
Area Oil Shale Office  
Suite 300, Mesa Federal Savings Bldg.  
131 N. 6th Street  
Grand Junction, Colorado 81501

Attention: Mr. Peter A. Rutledge  
Area Oil Shale Supervisor

Gentlemen:

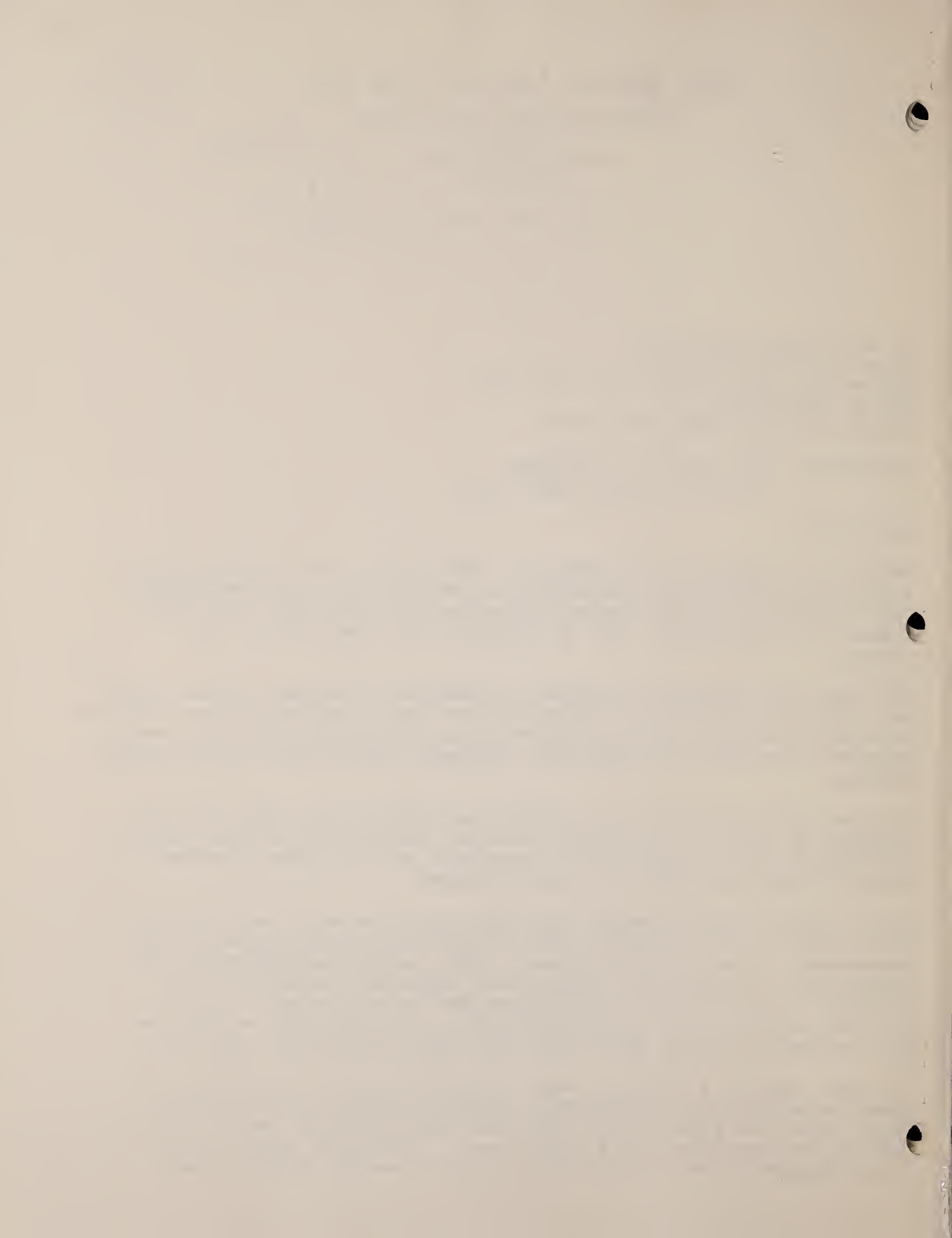
We are in receipt of your May 12, 1978 letter (with attachments) containing information regarding a possible four year extension of the commercial development schedule for prototype oil shale Tract C-b and giving a May 30 deadline for comments in this regard.

Now that this premature project is underway, because of its scope and experimental nature, there are few individuals or organizations with the time or staff to follow it in sufficient detail to make possible assembly of meaningful comments, especially on such short notice.

In the public interest, it would seem appropriate that periodic reports be made to interested parties (including the news media) by the Oil Shale Supervisor on progress and problems observed in work on both prototype oil shale tracts.

It is fully understandable that the operators of Tracts C-a and C-b will, in the course of their work, be tending to emphasize successes and minimize problems. Even handed judgments of the Supervisor, reported at appropriate intervals, would be most helpful to the public in analysing the true meaning of events as they occur on the prototype tracts and comparing results on the prototype tracts with other oil shale extraction projects.

In this regard, I think it most appropriate that the Bureau of Land Management is initiating a revision phase for the White River Land Use Plan which covers an expanded area including all of the Piceance Basin oil shale lands. It would appear that this expanded plan, by including provisions for establishment





U. S. Geological Survey  
Area Oil Shale Office  
Attention: Mr. Peter A. Rutledge  
June 15, 1978  
Page Two

of a system of federal oil shale priorities and coordination of the entire Colorado oil shale effort would fill an urgent need. I believe the Oil Shale Supervisor could be instrumental in helping to formulate planning necessary to initiation of an inclusive approach to federal involvement in oil shale extraction. The expanded Bureau of Land Management study could be a point of beginning.

Yours very truly,

RIO BLANCO NATURAL GAS CO.



Robert E. Chancellor  
President

Enclosure

cc: Craig District Manager (w/encl.)  
Bureau of Land Management  
P. O. Box 248  
Craig, Colorado 81625

Mr. Charles J. Curtis  
Area Oil & Gas Supervisor  
U. S. Geological Survey  
P. O. Box 2859  
Casper, Wyoming 82602  
RE: Rio Blanco Unit  
No. 14-08-0001-12376



## United States Department of the Interior

BUREAU OF LAND MANAGEMENT RECEIVED

CO-910  
C-20341COLORADO STATE OFFICE  
ROOM 700, COLORADO STATE BANK BUILDING  
1600 BROADWAY  
DENVER, COLORADO 80202

JUN 30 1978

OFFICE OF  
AREA OIL SHALE SUPERVISOR  
MCS

JUN 28 1978

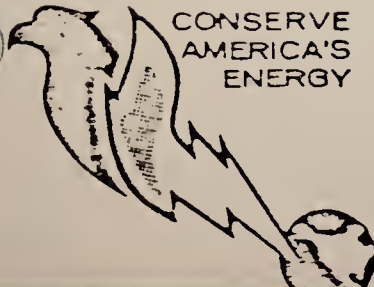
Mr. Peter Rutledge  
Area Oil Shale Supervisor  
131 N. 6th, Suite 300  
Grand Junction, CO 81501

Dear Mr. Rutledge:

This responds to your recent letter concerning revised schedules for development of oil shale tract C-b. We are somewhat concerned that an additional four plus years will be required to bring the lease to commercial production. However, I also recognize that operations on both leases are on the frontiers of technology and cannot be predicted or scheduled with precision.

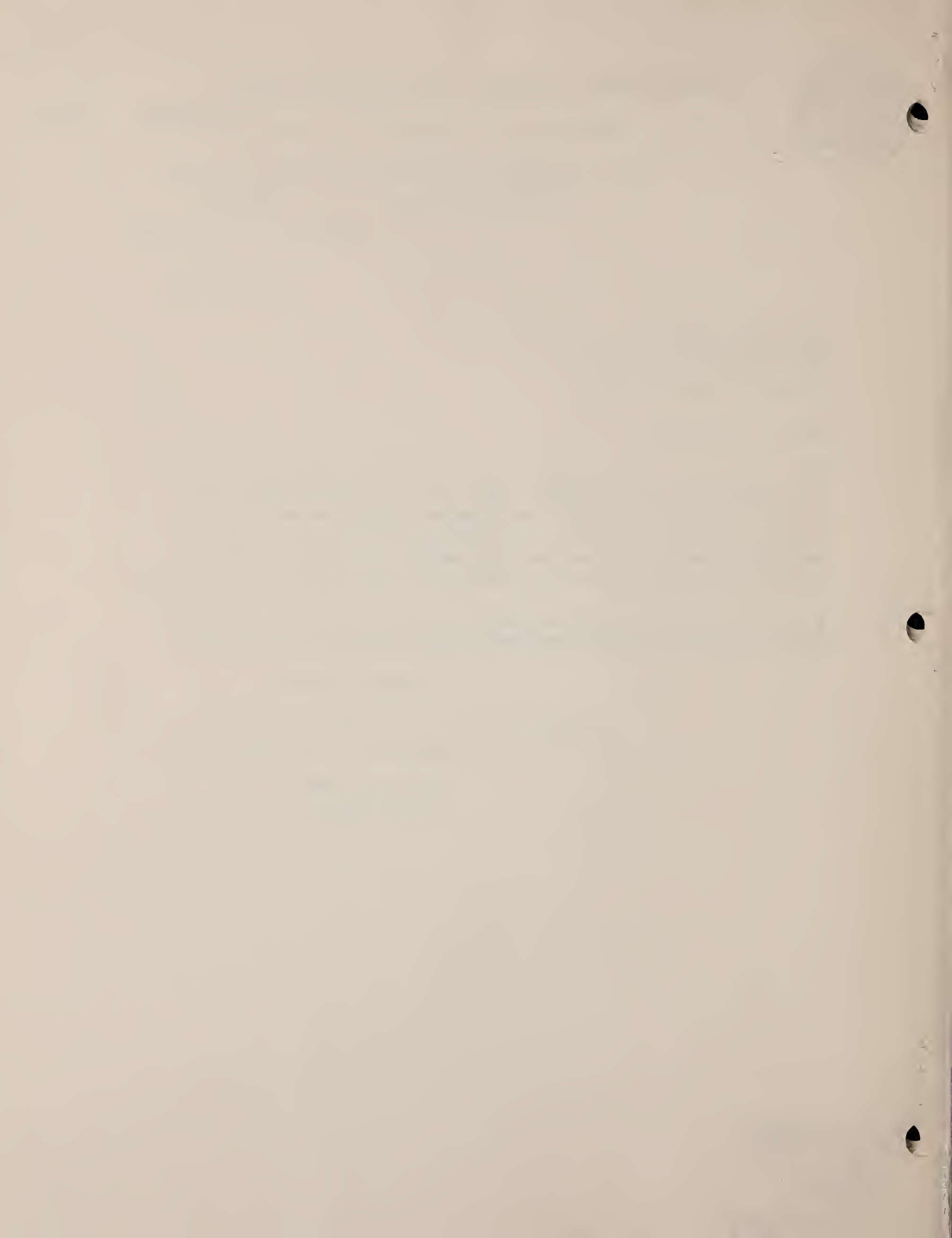
I believe that we should be alert to assure that the lessees continue to meet diligent development requirements of the leases.

Sincerely yours,


DALE R. ANDRUS  
State Director


CONSERVE  
AMERICA'S  
ENERGY

Save Energy and You Serve America!



Response to comments on the  
revised Development and Manpower Schedule

Of the six comment letters received, four stated there were no significant problems or concerns with the revised Development and Manpower schedules and two indicated some concern over the revision. The following is the Area Oil Shale Office response to the two comment letters:

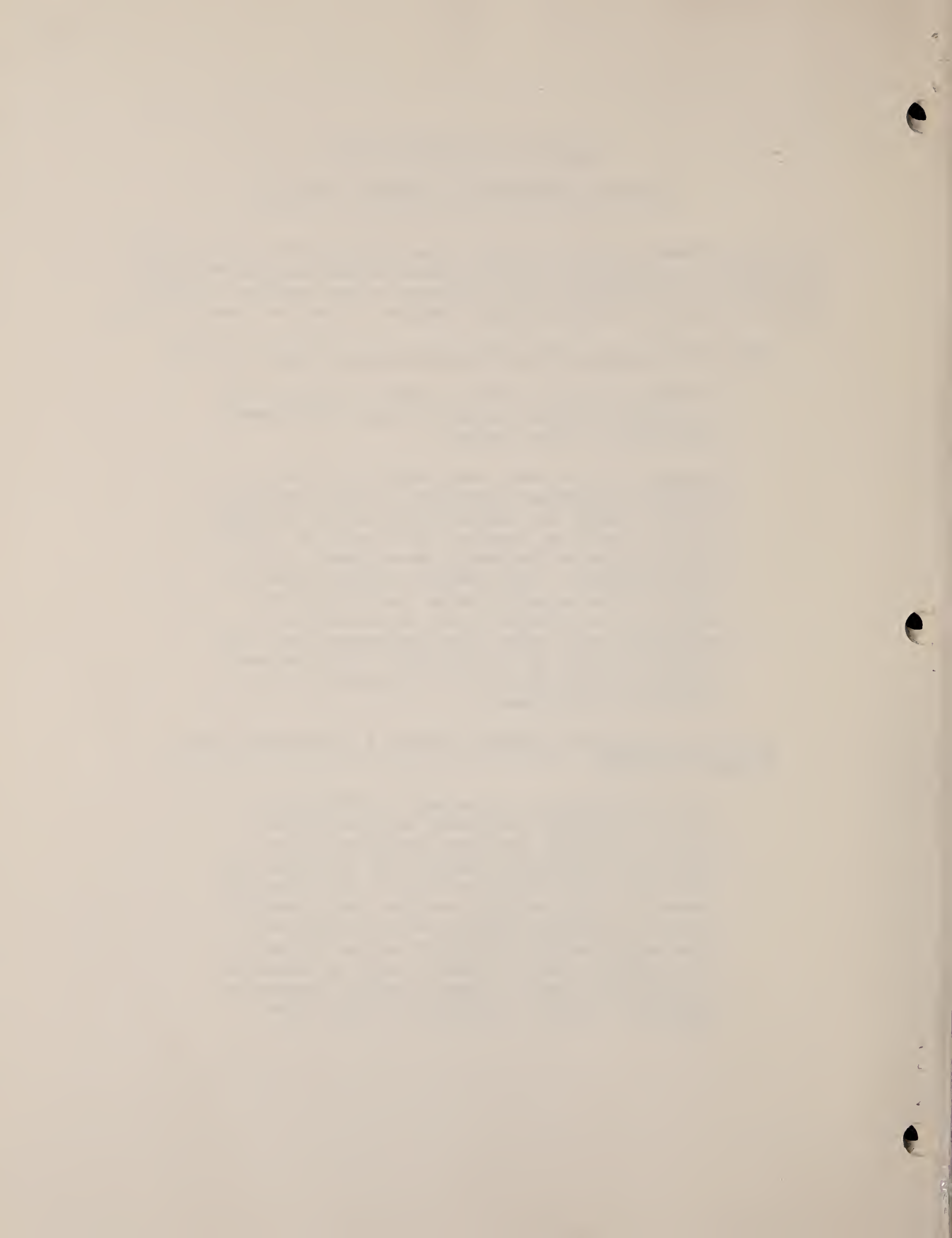
BLM, Dale R. Andrus, State Director letter of June 28, 1978.

"I believe that we should be alert to assure that the lessees continue to meet diligent development requirements of the lessees."

Response: We are very much aware of the due diligence provisions specified in Lease Section 10 and will remind the lessee of this in the approval letter. The lease requires the "Lessee to use all due diligence in the orderly development of the Leased Deposits". The revised schedule shows an effort by the Lessee to bring the project into production at as early a time as the method of development will allow. The requirement that the contractors operate on a 24 hour, 7 day per week schedule assures the earliest completion of the development operations.

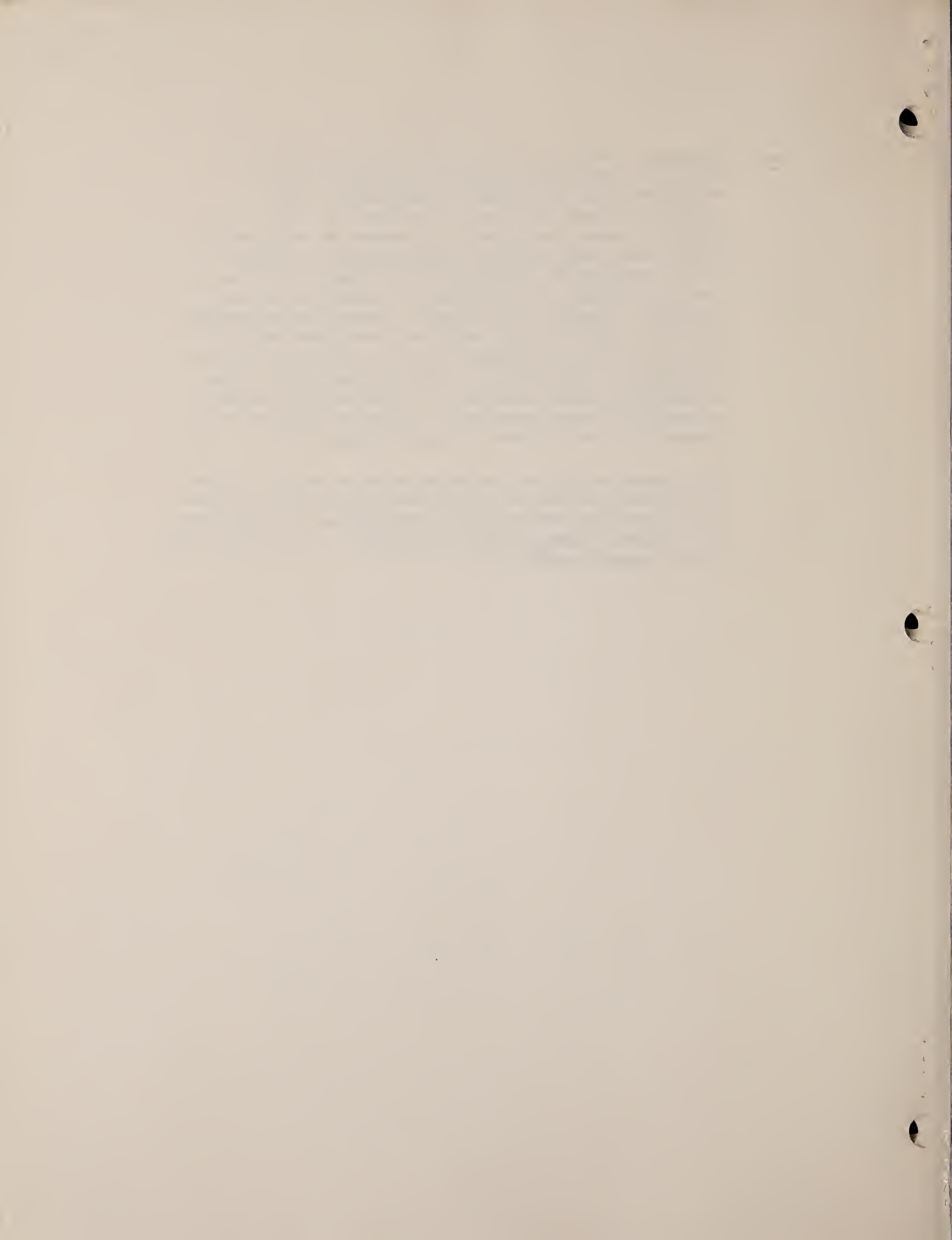
Rio Blanco Natural Gas Company, Robert E. Chancellor letter of June 15, 1978.

"We are in receipt of your May 12, 1978 letter (with attachments) containing information regarding a possible four year extension of the commercial development schedule for prototype oil shale Tract C-b and giving a May 30 deadline for comments in this regard. Now that this premature project is underway, because of its scope and experimental nature, there are few individuals or organizations with the time or staff to follow it in sufficient detail to make possible assembly of meaningful comments, especially on such short notice."



Response: We recognize Mr. Chancellor's concerns voiced in the letter; however, disagree with the statement that the project is premature. The project has been well publicized and all facets of Federal, state, and local governments as well as the public have been given the opportunity to comment on all aspects of the program. We realize that some comment periods are short due to induced time constraints. However, all reports, plans, and documents related to this project have been made available to the public and any concerned party could have followed with detail, the project's path to the point of the submitted revised schedule. We feel ample time was allowed for review and, as in the past, would consider comments up to the time of the decision letter.

The commentor did not voice an opinion on the revised Development and Manpower schedule and therefore leaves us to conclude that he has no significant problem with the schedule change itself, but rather a concern over the short comment period.





RECEIVED



United States Department of the Interior

JUL 14 1978

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

OFFICE OF  
AREA OIL SHALE SUPERVISOR

JUL 10 1978

Memorandum

To: Area Oil Shale Supervisor  
From: Assistant Secretary--Energy and Minerals  
Subject: Revised Schedules for Oil Shale Tract C-b

The revised Development and Manpower schedules for the approved Detailed Development Plan submitted by lessees of Oil Shale Tract C-b is approved, with the explicit understanding that this does not represent any change in the lease terms, any extension of the lease or any suspension of the lease under which this project is being carried out. Nor can this approval be construed as meaning any relaxation of the diligence provisions in the lease.

This approval is predicated on the fact that the original shaft sinking schedule submitted for the DDP was unrealistic and more precise estimates of the amount of time required for this work are now available.



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